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JUNE 27, 192[illegible]

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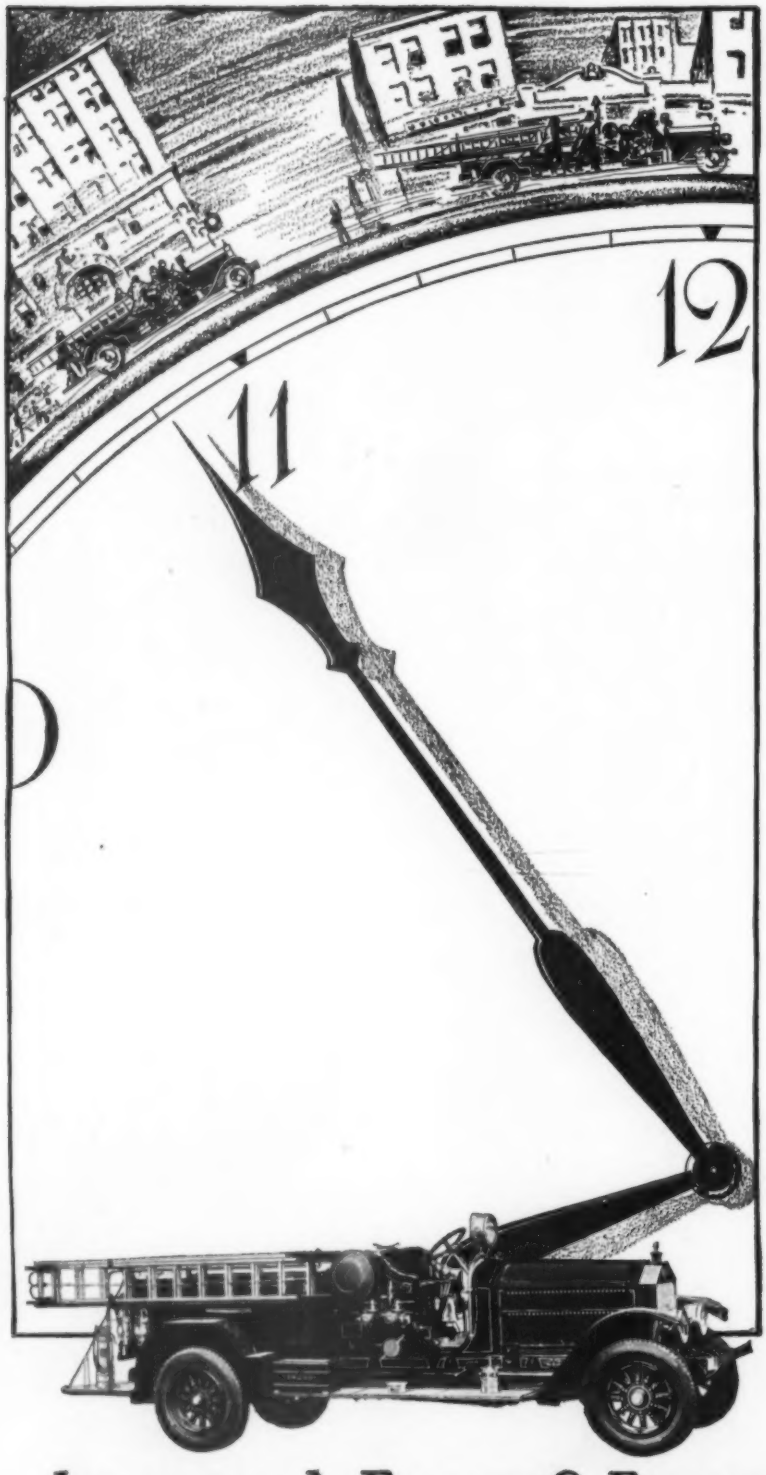

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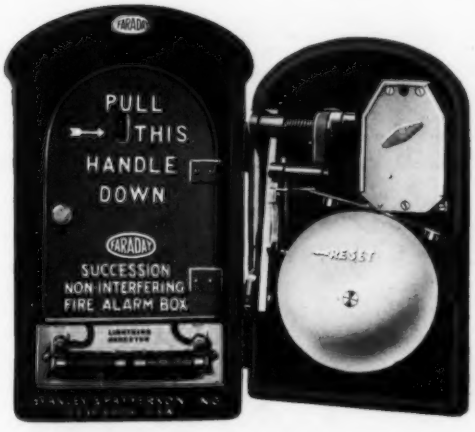

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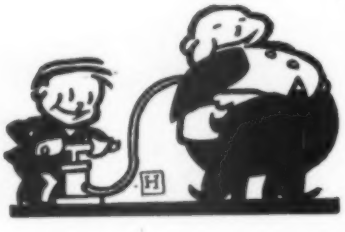

It's in the Air, Everywhere

CONVENTIONS to the north of us, Conventions to the south of us, Conventions all around us—the whole world seems to be conventioning these days.

¶ Worthwhile and important as most of these gatherings are in the fire game, everyone who should attend cannot always spare the time and expense unless the powers that be are progressive enough to provide the wherewithal.

¶ If you have to stay at home, FIRE ENGINEERING will do its part in bringing to you the complete "degasified" report of your favorite convention.

The Publishers

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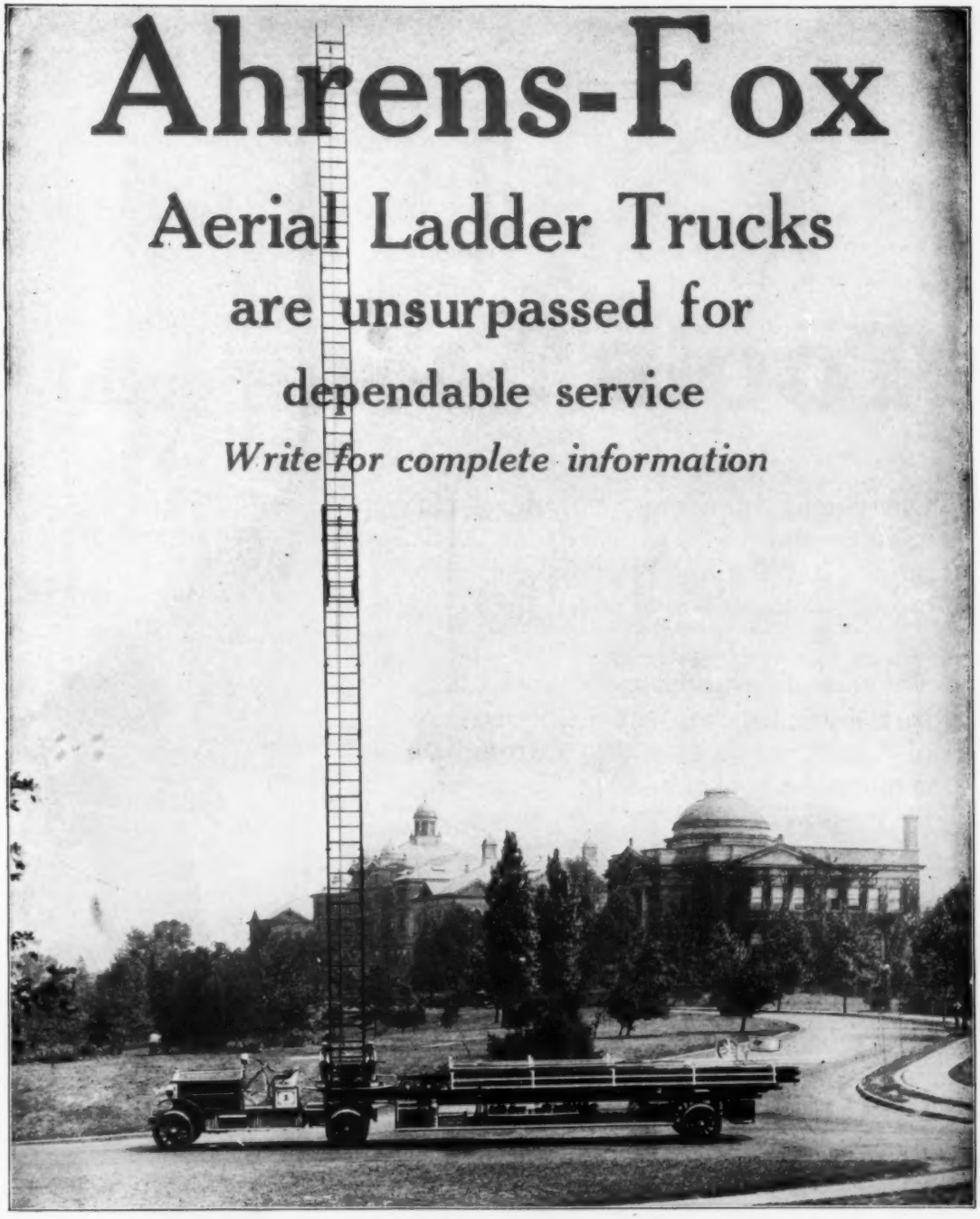

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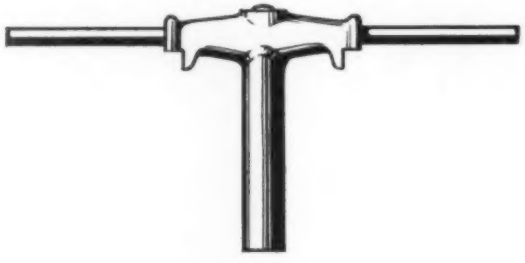

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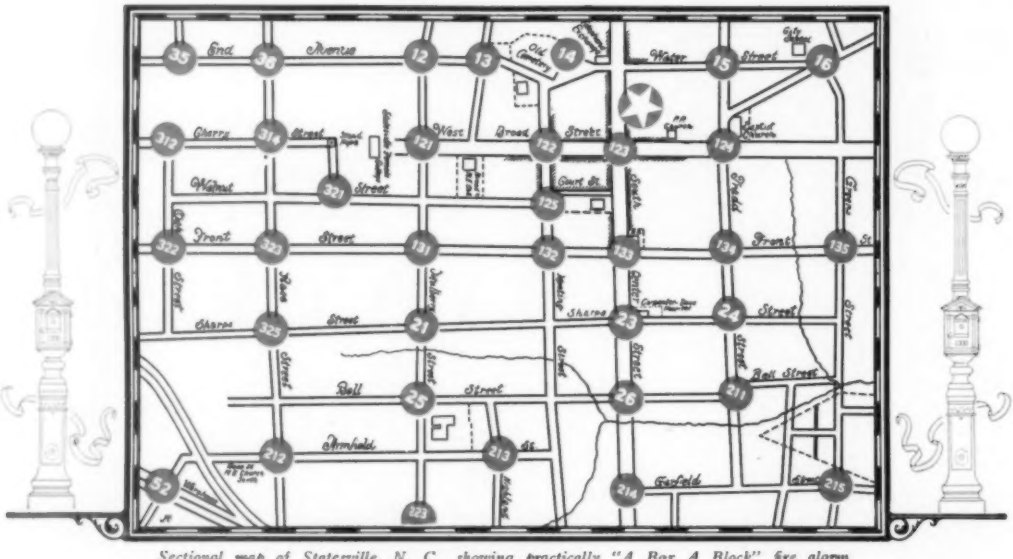

Sectional map of Statesville, N. C., showing practically "A Box A Block" fire alarm box distribution. Numbered spots indicate fire alarm boxes. Star indicates fire alarm central office.

Statesville, N. C., will attain the distinction of having the most adequate fire alarm protection of any small municipality in the country, upon the completion of a contract calling for the nearest approach to "A Box A Block" fire alarm system that has up to this date been installed.

Statesville has a population of 7895 and a fire area of 45 acres. The new Gamewell system calls for 100 standard Gamewell non-interfering and succession fire alarm boxes which will provide almost "A Box A Block" fire alarm protection for the business and developed residential districts.

Not only has the present been taken care of, but the future as well. In the fire alarm central office there will be equipment that will take care of the future growth of the city for some years to come. A Diaphone has been selected for a public alarm.

The officials of Statesville are to be commended for their good judgment in providing adequate fire alarm protection for their citizens. This step marks the removal of one more city from the ranks of those depending upon the telephone which is slow and unsuitable for fire alarm use.

The city has a good fire department and the officials realized that to secure the best results from that department they must provide it with prompt and accurate alarms. To assure promptness they have provided an almost perfect "A Box A Block" fire alarm box distribution—to assure accuracy they have selected the finest fire alarm equipment that is made—Gamewell equipment with a 63-year service record.

The citizens of Statesville have the assurance that their lives and property will be safeguarded. In addition they should not overlook the fact that the completion of the new fire alarm system will place them a few hundred points nearer to a better insurance rating.

When planning a fire alarm system for your city make it 100% "A Box A Block."

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Newton Upper Falls, Mass.

"A Box A Block"

FIRE ENGINEERING

(A Consolidation of Fire and Water Engineering and The Fire Engineer)

The Journal of the Fire Protection Profession

VOLUME LXXXI JUNE 27, 1928 NUMBER 13

Atlanta Fire Department—a Long Service

Efficient Organization of Southeastern Fire Chiefs' Convention City Has Had Notable and Honorable History — Established in 1850

THE Fire Department of the Convention City of the Southeastern Fire Chiefs' Association, Atlanta, Ga., has had a long and notable history. From the early days of its formation to the present splendid organization under its able Chief, William B. Cody, the story is one of ever advancing efficiency in the science of fire-fighting.

The successive stages of organization are all interesting. The early volunteers were men of means and influence, and their names are borne today by some of the most influential and most respected families of the city. The growth and competition of the various companies would fill a history in themselves. The beginnings of the paid department and the gradual accumulation of new equipment and new stations came little by little.

A Notable History

The citizens of the little backwoods village of Marthasville had little need for a fire department, for there were no houses of any dimensions, and these were grouped in a very small radius so that the few hundred residents could easily reach the scene and form a bucket brigade in event of a fire. And if, by any chance, a frame shack which served for habitation was destroyed, it was a very easy matter to replace it at small cost.

But by 1850, this state of affairs was changed. Marthasville had become the rapidly growing little city of Atlanta, and Whitehall and Peachtree were beginning to stretch out to considerable length. Houses of breadth and dignity were being built, furnishings of value were introduced, and the business section was taking on admirable proportions.

Atlanta's First Big Fire

In the year 1850, in the dead of night, a fire broke out, and before it was put out had eaten its way through one-half of the town with great loss. A temporary bucket brigade was organized on the spot and the men fought valiantly to stay the flames; but owing to the lack of any equipment whatever, it was a losing fight until great damage had been done. Water was carried from Walton Springs and from Mineral Springs with which finally to check the advance of the flames.

This misfortune awoke the people of the community to immediate action; and on the morning following the fire, a number of the prominent people of the town came together and brought about the formation of Atlanta's first fire company, the Atlanta Company No. 1.

First Volunteer Company

Atlanta Company No. 1 was actually incorporated on April 4, 1852. A charter was applied for and granted by the Legislature.

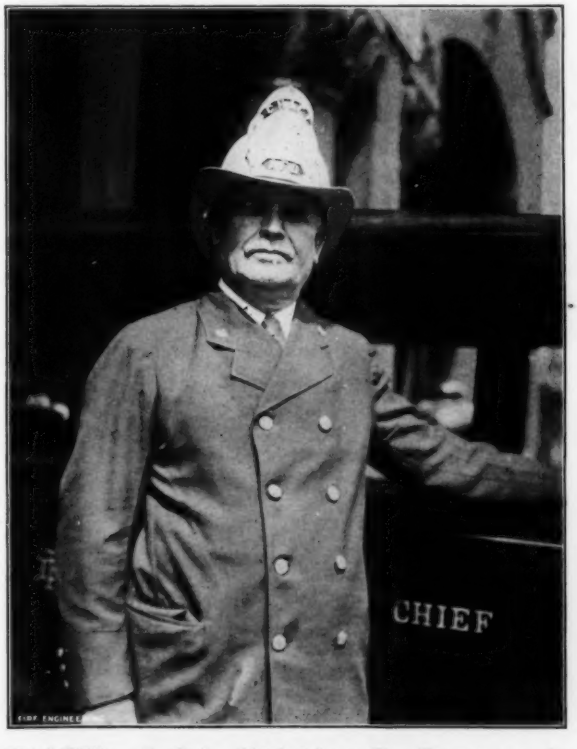
The company operated at first merely as a bucket brigade. There is a record dating from April 11, 1851, of an ordinance passed by council to provide fire cisterns at advantageous points about town and to compel every merchant to keep always on hand two fire buckets and a ladder. The cisterns were each five feet in diameter, holding ten feet of water.

After the incorporation of the company, immediate steps were taken to secure equipment with which to meet any emergncy. A hand engine and five hundred feet of leather hose was the goal of a most spirited subscription campaign, supplemented by fairs, special taxes and other methods of raising money. This was successful, and it was a great day for the little town of Atlanta when "Blue Dick," the redoubtable engine, arrived.

Patriotism Called to Fire Service

After the engine was secured, the next step was to house it. On April 8, 1854, council appropriated $800 to build an engine house on the west side of Market Street (now Broad). This figure does not mean very much to our modern ears; but in those days, it was found sufficient to give a suitable habitation to "Blue Dick," and here it remained until after the war.

The very rapid growth of the city during the fifties increased the activities of the one company to such an extent that a second company was organized. The evening of December 10,



Chief William B. Cody, Chief Atlanta Fire Department, the Vigorous Host to the Southeastern Fire Chiefs' Association

1856, a company of men gathered together in the Masonic Hall on Alabama Street to begin the movement. Most of them were from the shops of the Georgia Railroad; all of them had an intimate knowledge of machinery, and so the name chosen was, very fittingly, Mechanics No. 2.

Just after the organization, and before the equipment had arrived, another big fire swept Whitehall Street on the east side, from Hunter to Mitchell. The new company went to work with a will, aiding No. 1 in every way possible, and saving as much furniture as could be reached.

Home of Mechanics No. 2

Soon after this fire, the equipment arrived, and Mechanics No. 2 took up its residence in a house erected at the corner of Washington Street and Waverly Way, where Produce Row now is.

The next fire company to be formed was Tallulah No. 3. It came into being on Washington's Birthday, 1859. Its home was located at Broad and Walton Streets, on the site of the present Grant Building.

The organization of the first hook and ladder company was dramatic. Another big fire swept Whitehall Street during the winter of 1858. The building burned was a two-story frame structure with stores on the ground floor and apartments above. When the first company arrived, the fire was already under headway, and no one could get upstairs. It was known that several women and children were upstairs, but no ladders were at hand. In the frantic efforts of the firemen to find ladders, a woman and two children were burned, and others had exceedingly narrow escapes. In the crowd which had gathered at the fire was a man newly come from New York. He commented upon the shortage of ladders, and while the embers were still glowing, started a subscription to purchase necessary equipment for a hook and ladder company. Responses were both instant and generous, and the company was assured.

The Atlanta Hook and Ladder Company was not incorporated until the following fall, on November 28, 1859.

In 1860, the four companies were organized as one body; and from that time on, there was a central board of control, presided over by a chief elected by representatives from the different companies. William A. Barnes, of Mechanics No. 2, was elected first chief, with S. B. Sherwood as first assistant, and R. F. Maddox as second assistant. Barnes was succeeded by Sherwood, then J. H. Mecaslin, then Thomas G. Haney, in 1865.

Firemen Served the Confederacy

The outbreak of the Civil War brought new responsibilities and perplexities to Atlanta's fire department. Many of the men responded to the call for volunteers.

For the most part, however, the firemen contented themselves with adding military training to their other duties and organizing as a home guard.

Atlanta Company No. 1, through Chief Barnes, tendered their services for military and patrol duty. Tallulah Company No. 3 passed strong resolutions to the effect that as loyal citizens of the Southern Confederacy, they would prepare themselves by drilling for military duty, and would tender their services when needed by the Confederate States. In 1863, Tallulah organized as a cavalry company, and asked aid of council in equipping themselves for their new service. Later the entire department organized as a battalion.

Reorganized After the War

When the time of reorganization came, council was confronted with a request for $13,300 to make the department's services of value. No. 1 asked for $2,000; Mechanics asked for $7,000, Tallulah wanted $3,600; and the Hook and Ladder Company wanted $700.

The first steamer was purchased about this time. It was an Amoskeag, weighing 3,700 pounds, and it cost $5,000. It arrived on October 16, 1866, and was promptly given a trial. Steam was raised in the boiler and it was reported ready for action in seven minutes; and its pumping capabilities were the wonder of the day. Through fifty feet of hose, with an inch nozzle, it would force a stream for 225 feet. Through five hundred feet of hose and a seven-eighths-inch nozzle, it would make 204 feet.

Owing to the intimate knowledge of machinery possessed by the Mechanics Company, and their general efficiency, the steamer was awarded to it. It was taken to the Mechanics house on October 24.

Other Companies Organized

But as the city gained momentum in its phoenix-like rise from the ashes of the war, the limits spread rapidly. Outlying sections were built up, and the three houses, more or less centrally located, were not thought to be sufficient protection for those houses situated in the western section of the city. So on April 3, 1871, the R. E. Lee Company No. 4 was organized, and headquarters were established on the top of Castleberry Hill, on Fair Street. This was followed in the same year by another company, the Gate City No. 5. This was organized October 2, 1871, and was located on Foundry Street.

This was the hey-day of the volunteer fire department. The years from 1870 to 1880 were full of activities of many kinds; fully as many of them being of a social nature as pertained to the duties of the calling.

The first chief after the war was Willis R. Biggers, from Tallulah No. 3. He was succeeded by John Berkele, and he in turn by Thomas G. Haney. In 1871, Berkele was again chief; and then Biggers came back for a year. Jacob Emmel came in in '73, and after vacating in favor of Biggers in '74, came back the following year for a two-year session. In 1877, W. R. Joyner began a three-year chiefship, which was to continue for many years in the paid department. George W. Haney was chief in 1880-81, and Henry Karwisch, who had contributed such faithful service to the upbuilding of Mechanics No. 2, was the last chief of the volunteers in 1882.

Change to Paid Fire Department

With the realization that the city had outgrown the Volunteer form of fire department, came also a dissatisfaction among the Volunteers with the amount of appropriations made by the City Council for the support of their organization. After much

(*Continued on page* 560)

There Are Lots Better Places to Fry Eggs

Both the Mayor and Chief A. H. Lankford, of Glendale, Cal., have great confidence in the safety afforded by the asbestos suits recently purchased. The upper photograph shows Chief Lankford (left) and the Mayor (right) donning the suits before entering the test building. A small shack was set on fire. The officials fried an egg while the flames were crackling about them. The asbestos suits saved them from injury.

Judgment Must be Used in Ventilation

Caution in Removing Skylights and Opening Roofs— Useful Hints on Subject — Should Know Buildings

By CHIEF CHRIS W. NOLL, Fire Department, Poughkeepsie, N. Y.*

VENTILATION is one of the most essential points in fire-fighting, and the following suggestions by one of the progressive Empire State Chiefs, will be found of interest:

There are many valuable points to be considered in ventilating a building, as this is one of the most essential things in aiding the firemen to attack a fire.

Chief Chris W. Noll, Poughkeepsie, N. Y.

The confinement of heat, gasses, etc., may cause an explosion, and also spread the fire. To bring water and fire together, it is absolutely necessary to provide proper ventilation. If the building is filled with heat, smoke or gasses, the ventilation should be started at the highest point, as the smoke and heat banks up or accumulates, and causes an enormous pressure. The firemen should then work downward floor by floor, the direction the wind is blowing in should also be taken in consideration.

In ventilating, however, firemen should do no more damage than is absolutely necessary to accomplish the result desired. To get good results quick and thorough ventilation is not only essential for the men but also to minimize the loss.

Should Be Familiar With Construction of Buildings

It is also very essential that officers and firemen should familarize themselves with the construction and contents of buildings in their particular territory and the location of all elevators, elevator shafts, hatchways, dumbwaiters, air shafts, skylights, and penthouses. In many cases elevators are protected only by a heavy wire mesh on the different floors and in that case by opening the penthouse on the roof makes a very good point for ventilating the building. In some cases however the elevators are enclosed in fire proof construction and tight fitting doors and in that case the above means of ventilation would not be effective.

Caution in Removing Skylights, Etc.

In removing skylights for ventilation always push down on the inside with a pike pole or plaster hook so as to remove any obstruction that might be below, as on many occasions I found a glass sash frame level with the ceiling below; also the same procedure should be used when removing a scuttle cover on a roof, as in many cases, especially where the attic of a building is used for living rooms, there is a board covering over the top of the well-hole leading to the roof.

Caution should always be taken after removing a skylight or anything that is liable to make a large opening on the roof, when firemen are working on the same. I find it good practice to always station a fireman near the opening to warn them when walking around the roof, for, in many cases where the roof is heavily charged with smoke, it is impossible for a fireman to see the holes. There are cases on record where firemen have walked into just such openings and have lost their lives. It is also good practice to have your firemen familiarize themselves with the construction and operation of all revolving doors, so as to know how to collapse them, both for ventilation and to allow the companies to run their line of hose through the doors.

A hot air explosion or back-draft is sometimes caused by ventilating below the fire instead of above.

Fires in Cellars and Attics

If a fire is in a cellar, all exterior openings should be opened such as dead lights, cellar doors and windows, and all doors leading to the air; also dumbwaiters and elevator or other shafts, but of course this should never be done unless you have your line of hose stretched and charged with water ready for use so as to protect all openings in order to prevent fire from extending upward and communicating to the upper floors and adjoining buildings, through the open fire doors, etc.

* From a paper read before the annaul convention of the New York State Association of Fire Chiefs.

"WHEN ventilating an entire building the windows on the upper floor should be pulled all the way down from the top and the windows on the other floors should be opened the same as for one floor ventilation. When cutting holes in the gable roof, cut near the ridge pole, but avoid cutting roof timbers. Holes opened at that point can easily be protected after the fire is extinguished."

In case of blind attics, or where the roof must be cut for ventilation, it is good practice to always cut over the top of stairways, and any ceiling beneath should be pushed down by the use of plaster hooks. If the fire is only in one room the window should be pulled down two-thirds from the top and the lower sash should be pushed up to meet it.

Care in Ventilating Roofs

When ventilating an entire building the windows on the upper or top floor should be pulled all the way down from the top and the windows on the other floors should be opened the same as for one floor ventilation. When it is necessary to cut a hole in the gable roof, it is advisable to cut this near the ridge pole, but care should be taken to avoid cutting roof timbers. Holes opened at that point can easily be protected after the fire is extinguished.

Hazard of Celluloid

Extra precautions should be taken in ventilating a building containing celluloid mainly for storage or manufacturing purposes, as there is always danger of a back draft. Immediately or shortly after opening a door it is advisable to keep the firemen below the fire level for a minute or two after ventilation has been started.

I personally believe that ventilation is second to none in importance in fighting fires and by that observation, application and study you gain knowledge, so that your efforts and work will speak for themselves. There is one thing I think you should always remember—that is, that you are fighting fire and not smoke.

Beckert to Run for Treasurer I. A. F. C.

At the Philadelphia Convention of the International Association of Fire Chiefs next October Chief Ernest G. Beckert of West New York, N. J., will place his hat in the ring for the Treasurership, which office has been held for several years by the present incumbent, former Chief Peter B. Carter of Camden, N. J.

Chief Ernest G. Beckert
West New York, N. J.

In a letter being sent out to the membership, Chief Beckert writes:

"At the solicitation of many of my friends I am a candidate for the office of Treasurer of the International Association of Fire Chiefs. Last year at Portland, Ore., following a caucus of the delegates from New Jersey, unanimous support was assured me this year.

"I have attended the annual conventions of the I. A. F. C. faithfully since 1916 and have done my best to promote its welfare at all times. I feel I have the qualifications to fill the office of Treasurer of this association and I do wish to return to my city and its citizens some recompense in the way of recognition by the association. I am willing to serve to the best of my ability and a solicit your support for my election."

Atlantic City Chief not Yet Appointed—The vacancy caused by the death of Chief John J. Barnett, of the Atlantic City, N. J., Fire Department has not yet been permanently filled. The present acting chief is Joseph Leeds.

Michigan Firemen's Convention Date Changed.—The date of the 54th annual convention of the Michigan State Firemen's Association has been changed from July 10 to 12 to July 11 to 13. It will take place as before at Port Huron, Mich. H. L. Williams, Luddington, Mich., is Secretary of the Association.

PLANS MADE FOR SOUTHEASTERN CHIEFS' CONVENTION IN ATLANTA

Topics Assigned to Chiefs—Exhibit Space Free—Demonstrations Will Be Given on Salvage Work and Covering Furniture and Goods

ALL the details have been attended to in order to make the coming convention of the Southeastern Fire Chiefs' Association a decided success. The chiefs will meet in Atlanta, Ga., July 5-7. The organization is one of the regional section of the International Association of Fire Chiefs. The headquarters will be at the Ansley Hotel.

The following papers will be presented:

General Fire Fighting, by H. R. McMillan, Jacksonville, Fla.

Fire Prevention and Practical Salvage Work by Fire Departments, Chief D. W. Brosnan, Albany, Ga.

Community Fire Fighting, Chief John W. Monroe, Savannah, Ga.

Volunteer Fire Departments, Sherwood Brockwell.

Care of Equipment and Drills, Sherwood Brockweli.

Chief John M. Evans of New Orleans, will respond to the address of welcome as representing the association.

Chief D. W. Brosnan
Chairman Exhibit and Test Committee

Many companies have contracted for exhibit space. Those that have already reserved space are the Eureka Fire Hose Manufacturing Co., American-La-France and Foamite Corp., Fulton Bag and Cotton Mills, P. B. Manufacturing Co., Mine Safety Appliance Co., The Akron Brass Manufacturing Co., and The Gamwell Co.

Exhibits will be arranged in the Atlanta Auditorium and no charge is made for such space. Chief D. W. Brosnan of Albany, Ga., is chairman of the Exhibit and Test Committee. The association plans to make these displays practical. Facilities are provided manufacturers who desire to demonstrate their equipment or to conduct tests. There will be a demonstration of the use of foam in extinguishing fires and also one to show the practical methods employed in salvage work. Covers will be spread on furniture and merchandise, covers rolled, and other features of this work displayed.

The committee are anxious to demonstrate the true meaning of the term "southern hospitality." A large number of fire chiefs and men interested in fire prevention work are expected to attend.

The following is the program:

Registration, Thursday, July 5, 8 A. M., Ansley Hotel.

10.00 A. M., Opening Session, Auditorium Armory

President J. T. McNulty, presiding.
Singing of America, Music by Chas. Sheldon and Atlanta's Police Band.
Invocation, Rev. Richard Orme Flinn, Pastor North Avenue Presbyterian Church.
Solo (Selection), by Miss Margaret Battle.
Address of Welcome, Hon. I. N. Ragsdale, Mayor, Atlanta.
Response to Welcome, Chief Jno. M. Evans, New Orleans, La.
Presidents address, Chief J. T. McNulty, St. Petersburg, Fla.

2.00 P. M.

Report of Secretary, Chief H. E. Whitener, Hickory, N. C.
Report of Treasurer, Chief Donald White, Florence, Ala.
Topic No. 1, "General Fire Fighting," Chief H. R. McMillan, Jacksonville, Fla.

4.30 P. M.

Demonstration of Fire Appliances.

7.00 P. M.

Dinner and theatre party for ladies.

7.30 P. M.

Smoker—Round table discussion—Ansley Hotel.

(*Continued on page* 561)

Where Sprinklers were Useless

Stock Piled to Ceiling Prevented Water Distribution—Falling Floor Cripples System

THE fire described in this article of the series on administration occurred in a mid-west agricultural city of about 45,000 population. The property involved is indicated in the diagram herewith.

The unit in which the fire occurred was a two-story and basement structure of semi-mill construction employed as a candy and cracker factory. The building was quite old and very much congested with stock, particularly in the basement, at the time the fire occurred.

The Fire Department

The fire department in this city consists of four engine companies, one ladder company and one hose company.

Engine Co. No. 1 is equipped with a tractor drawn steamer of 700 gallons capacity and a motor driven hose wagon with deck gun, carrying 2,000 feet of hose; Engine Co. No. 2 is equipped with a 700-gallon triple combination; Engine Co. No. 3, a 700-gallon triple combination; Engine Co. No. 4, a 750-gallon triple combination; Ladder Co. No. 1, a city service truck; Hose Co. No. 1, a combination chemical and hose truck carrying 2,000 feet of hose.

The response to alarms is as follows:

First alarm, Engine Cos. Nos. 1 and 2, and Ladder Co. No. 1; second alarm, Engine Co. 3 and Hose Co. No. 1.

Engine Co. No. 4 is special called.

The water supply in the neighborhood of the fire was fairly satisfactory, it being provided by a ten inch main with 6 and 8 inch laterals. Pressure in the main at light flows was about 50 pounds, while this dropped to around 35 pounds under heavy draught.

Occupancy of Fire Building

The occupancy of fire building was as follows:

Section "A," basement. Storage of flour, sugar, sacks and paper cartons on 4 inch raised platforms. Flour mixing bin and bag cleaner, paper cutter, storage of soda, powdered milk, syrup and extracts. First floor—storage of candy, crackers, cookies; pasteboard, wood and metal cartons; Office, packing, shipping, lunch room, chocolate cooler. Second floor—Cookie and cracker packing in paper bags, pasteboard and metal boxes; electric motors on line shafting and individual machines for candy mixing; steam heated candy kettles, natural gas heated candy kettles, candy rolling tables, candy pulling and cutting machines and cookie icing machines.

Section "B," basement. Box and crate making (stock stored up tight to ceiling); peanut sorting and roasting; one brick peanut roaster; oyster cracker sorting and packing, etc. First floor—storage of pasteboard cartons and metal cans; cracker sorting and packing; two large cracker ovens continuous to roof; continuous conveyor chain for cracker pallets; pasteboard box stapling machines; electric motors. Second floor—electric motors; dough rolling and cracker and cookie printing machines; two large brick cracker ovens and elevator for cracker pallets.

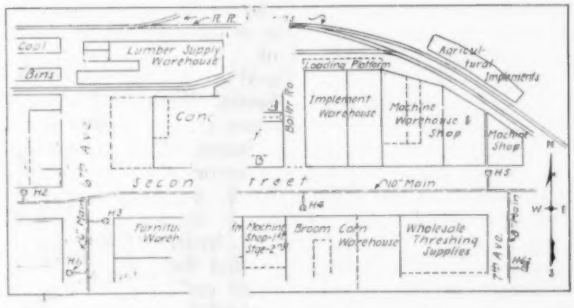
Section "C," basement—two 250 H.P. steam boilers, boiler pumps, piping, five barrels lubricating oil, pipe shop, water softener, and 120-gallon fuel oil storage tanks. First floor—metal cookie can cleaning, electric motors, gas hot plate, storage of miscellaneous mill machinery. Second floor—dough mixing, three batch mixers operated by single motor.

Severe Congestion

The congestion of stock in the basement of sections A and B was so severe that the sprinkler heads were obstructed and could not operate properly. Stock was piled to the ceiling in the basements of both of these sections.

To make matters worse, sections A, B and C were interconnected on all floors by open doorways, not equipped with fire doors.

While a modern sprinkler system was installed in the building no connection had been made to the 10-inch city main, but a supply was furnished by tanks and an electric driven pump which took its supply from a cistern located to the west of the building. As the pump was located in the basement of section B, it was made inaccessible immediately upon this area becoming involved.



The 10,000-gallon tank was, therefore, the sole supply of the sprinkler system.

Details on the water supply systems, surrounding exposures, etc., are shown on the diagram.

The Fire

The fire was discovered at the end of the lunch hour by employees returning from lunch. Apparently it started behind an improperly insulated peanut roaster and at the time of discovery fire had secured a good start in the stock of boxes and crates stored at the east end of the building.

A box alarm was immediately transmitted bringing out a first alarm assignment, consisting of Engine Cos. Nos. 1 and 2 and Ladder Co. No. 1. The assistant chief responded with this apparatus and assigned them to operate as follows: Engine Co. No. 1 at hydrant No. 4 and a single line stretched to the ground floor of section B, it being impossible due to the intense heat in the basement of this building to get a line down the stairway. It was apparent that the entire basement of section B was involved by fire, and flames were rising through the elevator and stairwells. Engine Co. No. 2 was placed at hydrant No. 3 and a single line stretched to the basement of section A. Fire had already secured a small hold in the basement of section A and the smoke was

quite intense, slowing up the department in its work. This line from Engine Co. No. 2, however, was able to kill the fire in the basement of section A and proceed to cover the doorways leading from section B.

The ladder company opened up and two members went to the roof to ventilate over elevator shaft.

After operating about five minutes a second line was stretched from Engine No. 2 in on the ground floor of section B, for the single line operating on this floor was having quite a task to hold its position and the fire was apparently gaining greater intensity in the basement.

After operating for possibly ten minutes a second alarm was transmitted bringing out Engine Co. No. 3 and Hose Co. No. 1. The remaining engine company was also "special called" shortly thereafter.

Before the arrival of any of the second alarm apparatus, fire entered the basement of section C and quickly involved the oil and fuel stored therein.

Shortly after the arrival of the apparatus on the second alarm, the ground floor of section B fell through, just after the lines operating from Engine Co. No. 1 had retreated. In falling, the floor knocked out a portion of thin brick wall between the sections A and B and the line operating in the basement of section A was subsequently forced to withdraw.

Line from Engine Co. No. 2 was later placed in operation with cellar pipe into the basement but due to the congested condition of the basement, no appreciable range could be secured from the cellar pipe.

It was possible before withdrawal, however, for the men operating from Engine Co. No. 2 to shut off the sprinkler system in section B, as the breaks in the sprinkler system caused by the collapse of the floor was fast bleeding the sprinkler tank.

Engine Co. No. 3 was placed at hydrant No. 5 and a single line stretched along Second Street and through the alley to section C, to operate on the ground floor. So intense was the fire in the basement of this section that it was apparently but a question of a few minutes until the floor of this building, which was heavily weighted down with machinery, would go through. Engine Co. No. 4 was placed at hydrant No. 2 and a single line stretched to the ground floor of section A.

These five lines operated in an endeavor to hold the fire and might have been successful had not the ground floor of section B gone down. This opened up the north corner of the plant up to the second floor, and permitted the fire to reach the floor above.

Fire also passed up through section B to the second floor, which was soon fully involved. From this point on the fire continued to increase in intensity.

All efforts were directed toward covering exposures, with good success.

The lines from Engine Cos. Nos. 4 and 2 covered the lumber yard to the north while lines from Engine Cos. Nos. 1 and 3 covered the implement warehouse to the east.

As there was no appreciable breeze blowing at the time of the fire, these two exposures were the only ones in serious danger.

After holding the fire for about two hours it was finally controlled without its extending to any of the surrounding structures. The fire building, however, was leveled.

The Editor's ideas on the handling of this fire will be given in the next issue of this journal.

ATTENDANCE OF FOUR HUNDRED MARKS BIG OHIO CHIEFS' MEETING

Annual Convention of the Chiefs' Association Is Held at Marion—Good Papers and Lively Discussion — Exhibits a Feature

THE eleventh annual convention of the Fire Chiefs' Association of Ohio was held in Marion, Ohio, June 5 to 7. The arrangements were in direct charge of the president, Chief T. J. McFarland, of Marion. He was ably assisted by the First Vice-President, Chief Robert Leedom, of Portsmouth, Second-Vice-President, Chief Edw. J. Hunsinger, of Massillon, and by the Secretary-Treasurer, Chief Philip J. Harty, of the Youngstown Sheet and Tube Company, Youngstown, Ohio. The total registration was about 400.

The convention was called to order at 1:30 p. m. Tuesday, June 5, by the President. Invocation was by Rev. Wiley S. Young. The address of welcome was by Mayor Earl M. Hazen, of Marion. The response was by Chief James E. Granger, of Cleveland, Ohio. Secretary Harty then read the minutes of last year's meeting at Mansfield, Ohio. The selection of committees was then announced.

The first address of the afternoon was on "Arson Investigations," by Edward L. Donovan, National Board of Fire Underwriters, Chicago. Mr. Donovan related his experiences while serving as an arson investigator in the Ohio State Fire Marshal's Department, cited the difficulties attending arson investigation, and told what steps should be taken where arson was suspected.

The second address was on "Firemen's Pensions and Compensation" by Grant E. Moser, Jr., Special Counsel, Department of Attorney General, Columbus. Mr. Moser outlined the provisions of the Ohio Workmen's Compensation Law, as applicable to firemen, and pointed out the need of definite concerted action with regard to securing better laws for the protection of firemen and their dependants.

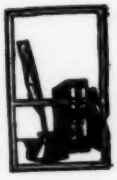
The third address was on "Field Engineering Service of the N. F. P. A.," by H. L. Bond, Field Secretary, National Fire Protection Association, Boston, Mass.

The last address of the afternoon was by W. S. Winnard, of the Ohio Inspection Bureau and former Superintendent of Ma-

(Continued on page 562)

First Group, L. to R.—Three States Represented at Ohio Chiefs' Convention: Chief Green, Steubenville, Ohio; Chief Hensley, Ashland, Ky., President of Fire Chiefs' Association of Kentucky, and Chief McGranahan, Wheeling, W. Va. Second Group, L. to R.—Chiefs Holst, Marietta, Ohio; Cook, Bridgeport; Speddy, Lakewood, and Green, of Steuben. Third Group, L. to R.—Chief Leedom, Portsmouth, Ohio, and John C. Schellim, Akron Brass Company, Wooster, Ohio, in Charge of Exhibits

WITH THE EDITOR



Smoking in Places of Amusement

While in New York City and other places smoking in certain portions of the theatre is prohibited, it is permitted in parts of the auditorium. No one may smoke in the property rooms, paint rooms, carpenter shops, scene docks, locker rooms, dressing rooms, engine and boiler rooms, etc., and yet, where people are assembled and where plenty of inflammable material is in close proximity, a certain portion of the audience may smoke and throw matches around to their hearts' content. With the ever growing use of the cigarette by the gentler sex, with their proverbial carelessness, and their flimsy, highly combustible garments, the danger is increased fourfold.

It does not require a very vivid imagination to conceive what would happen in the event the clothing of a single individual, in that part of the auditorium where smoking is allowed, taking fire, particularly when crowds are congested in the aisles during the exit after a performance.

Then there is also the presence of a large amount of combustible material composing the drapery, carpets and upholstery to increase this hazard. It must also be borne in mind that the danger in this case lies less in the intensity of such a fire, as in the almost certain panic which would ensue if such a blaze should occur. Histories of theatre disasters prove conclusively that the loss of life is greater from panic than from actual contact with the fire.

It would seem that the best plan from the standpoint of safety would be to entirely prohibit smoking in all parts of the theatre except the smoking rooms. This plan would remove the danger of fire and panic, with heavy loss of life that is ever hovering over the crowded theatre. It would largely prevent the holocaust that is inevitable if the present practice of smoking in parts of the theatre is continued.

Why Not Back Up the Chief?

One of the most essential things for the proper administration of the fire department is the backing up of the chief by the city or village administration. If the efficiency of this important branch of the municipality's activities is to be maintained, this support must be wholehearted and complete.

How often, however, the reverse is the case! Sometimes for political reasons; in other instances, from mistaken economy, and again for reasons actuated by personal animosity, the recommendations of the chief looking to the betterment of the fire department are either denied or ignored. These recommendations may take various forms—the increase of fire-fighting facilities; additions to the apparatus; more and better placed fire hydrants; increase in personnel of the fire department; better tools and facilities for the drilling of the men, and so on.

It matters very little what form these recommendations of the chief take or of what their nature. In refusing to consider and grant them the municipal authorities are assuming a very grave responsibility. If the chief does not know what the department needs who else does? It is a safe guess that what the chief asks only for is really a necessity, and there should be no hesitation in granting such request, even if it means a slight retrenchment in some other less important branch of the city's government.

Economy in matters of fire-fighting is apt to prove a boomerang when the time comes to fight a serious fire resulting in the getting away of the fire, and many thousands of dollars more damage than would have been spent to bring the department up to its full efficiency.

You cannot fight fire with a poorly equipped or insufficiently manned Fire Department!

Advantages of Setting-Up Exercises

It is of the greatest importance that the modern fireman be physically fit. He can never tell at what time, day or night, his endurance and strength may be tested to the utmost, or what strenuous work he may suddenly be called upon to perform in rescue work or fire-fighting. In order to be ready for such a test his muscles and nerves must be always in the best of condition.

If they are not—if there is any tendency toward flabbiness or weakness—the result may be damaging to himself and to those he may be called upon to assist, or to his work in fighting the blaze, where strength and steadiness are called for to the highest degree.

This being the fact, every means should be adopted to develop and physically strengthen the fireman. The means adopted to accomplish this end are usually through the frequent exercise of the men in calisthenics or "setting up" exercises. This means of aiding in the men's physical development, if regularly used and properly taught by a qualified instructor, is admittedly the most successful. Such exercises are used regularly by the United States Army, the Navy and the militia of the various states.

The use of this system by the fire department is, therefore, in line with the best practice of experts in

the development of the human body. It is hardly necessary to point out that any practical method by which the efficiency of the individual member of the fire department may be increased is worthy of adoption.

But there is still another reason, and an important one, why well regulated exercise is an advantage to the members of fire departments. This arises from the fact, well known to the medical fraternity, that carefully trained muscles, properly and scientifically developed, result in the correct functioning of the organs of the body, which in turn means health, clear thinking and an alert mind. This is of the utmost importance to the fireman, who at any time may be caught in a tight situation in which quick thought and action may mean his own safety and that of those he is called upon to assist.

Those chiefs who have not inaugurated a system of setting up exercises as part of the routine of their uniformed forces, may profitably consider such.

SUGGESTIONS FOR STRETCHING HOSE TO HIGH LEVELS OF BUILDINGS

Answer to Question Submitted by New York Fire Department at Promotional Examinations—Plan for Fighting a Fire on Thirty-Fifth Floor

By LIEUT. WILLIAM F. MCDONALD,
Engine Co. No. 39, New York Fire Department

TO stretch hose lines to high levels of a building, the points that must be kept in mind are as follows:

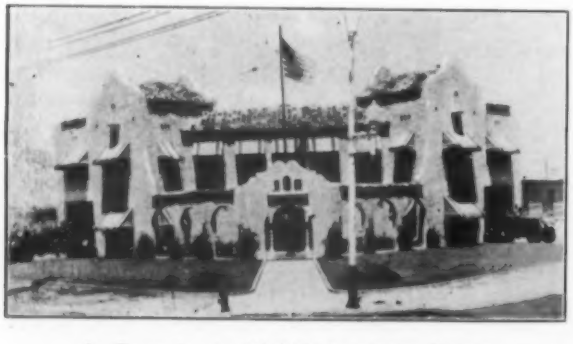
1—The features of construction that will permit the stretching of a hose line in the least possible time, and, the features that will make such an evolution difficult.
2—How much fire is present?
3—What are the dangers of it spreading?
4—How much water would be needed to localize, control and extinguish fire?
5—Would two well directed ⅞ inch streams extinguish fire?
6—Would one well directed 1⅛" or 1¼" stream extinguish the fire?
7—Is it necessary to stretch more than one line?
8—Would one standard method of stretching a line to high levels cover all conditions?

The above points are not all that must be considered, but they lead to the correct solution.

Favorable Features

Some of the favorable features are, in the order named, considered by the writer as the best means for a quick, simple and practical evolution:

1—A large well-hole in the center of a stairway which will permit the use of a fire escape hook. The Municipal building and other large buildings have this feature of construction.
2—A fire tower stairway with balconies directly over each other. This structural feature will be found in factory buildings over 100 feet in height; in business buildings over 85 feet in height.
3—A fire escape may be present on an existing business or residence building.
4—Where number one, two or three are not present, one side of the building may have a vertical wall without setbacks.



An Example of a Well-Designed Fire Station

Were it not for the apparatus outside of the building, few would believe that this attractive structure in Miami, Fla., is a fire station. It is indicative of what may be done to make fire department buildings attractive and pleasing to the residents of the section.

Unfavorable Features for Outside Stretch

The features of construction that make it difficult to stretch a hose line on the outside of a building are:

1—Large ornamental projections from exterior walls at various floor levels.
2—Building having many setbacks.
3—Great quantities of wooden scaffolding surrounding a building in course of erection which may be fully afire and which may collapse during the progress of stretching a line on the exterior of a building and making it absolutely necessary to abandon such means of getting water on the fire.
4—If the building is occupied with a factory occupancy, many of the doors leading to floor lofts may be provided with fox locks, etc., which means delay in getting the doors open and getting men to the proper window alignments.

Another point that must be made clear is that it is absolutely essential that sufficient pressure be maintained at the engine to provide a good solid stream on fire floors, because all the while that line is being stretched, the fire is gaining in intensity and spreading, and with this point in mind an officer should be prepared to have a stream that can be thrown from a reasonable distance. This was absolutely necessary at the late Equitable fire, and the fire pumps were maintained at a pressure of 375 pounds. Why take a chance? Is it not good judgment to be prepared for the worst?

Suggested Method

Let me put one method on paper for the purpose of considering its practicability for actual fire conditions and at the same time taking into consideration its quickness, its simplicity and its advantages.

I will assume that there is a fire on the 35th floor of a building covering an area similar to the Municipal building. There are two stairways, each having large well-holes in the center. The standpipe and elevator systems cannot be used. How can the line be placed in position to get a stream or streams on the fire?

Answer:—By stretching the line up the stairway, through the stairwell, using 2½" hose and fire escape hook. Using least exposed stairway.

Method of Procedure

Order a second alarm transmitted immediately for the purpose of getting sufficient men and pumping engines.

Send six men to the 34th floor with the following tools: axe; six-foot hook; lock breaker; hose spanners and hose straps; two 1¼ inch control nozzles with tips and a 2½" x

(Continued on page 566)

Bermuda Trip Planned for Fire Chiefs

The Eastern Regulars, under the direction of Frederic E. Bensen, are planning an interesting 9-day trip to Bermuda this year immediately following the International Fire Chiefs Convention at Philadelphia in October.

The party will sail from New York, Saturday, October 20, the day after the convention closes, on the Furness Bermuda Line's new motor ship Bermuda, returning Monday, October 29, on the steamer Fort Victoria. A two-day sail each way leaves five days in Bermuda and the total cost of $150.40 covers an outside stateroom with meals both ways, double room with bath and meals at the Belmont Manor Hotel, carriage ride through St. George stopping at the Crystal Cave, drive to Gibbs Lighthouse, drive through Tuckerstown, and steamship excursion to Sea Gardens. At this rate 17 rooms, accommodating 34 people, are available. For those who want even better accommodations, there are 29 rooms for 58 persons at an additional cost of $30 each.

On this trip, which will be the fourteenth annual journey of the Eastern Regulars, everybody is welcome and if a large enough party can be arranged a whole steamer may be chartered.

Reservations, which must be made on or before July 15, should be accompanied by a deposit of $10 per person. Checks are to be made payable to the Furness Bermuda Line and mailed to Frederic E. Bensen, care of the Eureka Fire Hose Manufacturing Co., 50 Church St., New York City.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified.

Discharge from Pumper

To the Editor:

Relative to the "False and True" question No. 7 in your issue of May 30th, I beg to take issue with you on your answer.

The question reads: A 700 gallon pumper should be able to deliver at least its full rated capacity at 120 pounds net pump pressure through two 100 foot 2½-inch hose lines siamesed into a 1¾-inch nozzle.

I take issue because "Freeman" in his table of tests of pumping engines which was issued by the National Board of Fire Underwriters, states that in case the 120 pound pressure could not be maintained with both gates open, that the closing down on one of the gates would enable the pressure to be reached and maintained.

Also on actual tests taken, using an American La-France 700 gallon pumper with a hydrant pressure of 50 pounds, with layout as per question, a pressure of 130 pounds was maintained without manipulating either gate valve. And by closing down on one of the gate valves a pressure of 160 pounds was reached.

By closing down on the hydrant until the compound gauge reached 5 inches of vacuum a pressure of 125 pounds was maintained and by closing down partly on one of the gates a pressure of 150 pounds was reached.

The engine used has been in service for 3 years.

So in my mind the correct answer to the question should be "True," as the question asked as to whether or not it could be done and not what the layout was to test the capacity of an engine.

G. P. J.

Answer: It is the writer's opinion that the problem as framed does not take into account the manipulation of a gauge in such a manner as to throttle the discharge from the pumping engine and thereby build up the pressure. When a certain layout is attached to a pumping engine in test and no mention is made in a question regarding throttling the flow, it is assumed that the layout is used without such throttling. If this point were considered, then the question stands as "false." On the other hand if the examiner had in mind the manipulation of valve so as to maintain the pressure, then the answer would be "true."

If this latter practice is followed since the size of nozzle has no relation whatsoever on the engine pressure nor has the length nor layout of hose. As a matter of fact a discharge of 700 gallons per minute at 120 pounds pump pressure could be secured from an open butt by properly throttling the valve. In view of this fact, why specify a particular hose layout if it is to have no bearing on the answer?

To the Editor:

In regard to False and True question No. 7 in your issue of May 30, 1928, which reads as follows:

> A 700 gallon pumper should be able to deliver at least its full rated capacity at 120 pounds net pump pressure through two 100 foot 2½ inch hose lines siamesed into a 1¾ inch nozzle.

The answer as given is "False," with a note which reads as follows:

> A 700 gallon pumper should deliver its full rated capacity at 120 pounds through two parallel 100 foot lines of 2½ inch hose with 1⅝ inch nozzles. A 750 gallon pumper, on the other hand, should be able to deliver its full rated capacity at 120 pounds through two 100 foot lines of 2½ inch hose with 1¾ inch nozzle.

Now as the question reads: It says that a 700 gallon pumper should be able to deliver at least its rated capacity with a 1¾ inch nozzle, and on working it out it gives a nozzle pressure of 75 pounds, which will deliver according to the Underwriters' book on Fire Stream Tables, a flow of 787 gallons. This being a greater flow than 700 gallons and the question saying its rated capacity should at least be delivered, I would appreciate very much further explanation.

My solution briefly stated follows: Two 100 foot lines of 2½ inch hose is equivalent to a single line of 2½ inch hose 28 feet in length, and for which the factor is 3.6

K is .907; L, .56

.907 x .56 plus 1.1 = 1.60792

120 ÷ 1.6 = 75 pounds approximately.

If it will deliver its rated capacity through a 1¾ inch nozzle, why will it not deliver it through a 1¾ inch nozzle which is larger?

J. B. J.

Answer: In the first place it should be noted that the answer as given in the March 30th issue is the editor's own opinion and has not confirmation from the Civil Service Commission.

If you will analyze the question again—and you have really answered it in your own solution—you will find that at 120 pounds pump pressure the pump would be delivering 787 gallons per minute with the layout and size of nozzle as stated.

Now a 700 gallon pumper is only expected to, and can only be called upon to deliver 700 gallons at its rated pressure, 120 pounds. If you are going to force it to maintain a pressure of 120 pounds at the pump, you will have to have a pumper which can give more than 700 gallons a minute at this pressure. In other words if the pumper is only capable of delivering 700 gallons per minute at 120 pounds pump pressure you cannot raise the pump pressure to 120 pounds with the layout as given because in this case it would require on the part of the pump a discharge greater than it is rated as giving.

In actual practice pumpers are built so as to have sufficient excess capacity to possibly maintain 120 pounds pump pressure when pumping through two 100 foot lines of 2½ inch hose siamesed into a 1¾ inch nozzle. On the other hand, the statement as given in the question does not assume any greater capacity than 700 gallons per minute at 120 pounds pump pressure, and therefore you are not entitled to work on the assumption that it could give 780 gallons per minute at this pressure.

Dangerous Oils

To the Editor:

Will you kindly publish at an early date the names of all vegetable oils that will cause spontaneous ignition, and under what conditions.

While I know that linseed, rape seed oils and several others will cause fire, I am anxious to get a complete list of all.

G. C. A.

Answer: Below is given a list of vegetable oils commonly used, together with the statement as to whether or not they induce spontaneous heating (and hence induce spontaneous ignition).

Acetone, no; alcohol-amyl, no; alcohol—denatured, no; alcohol—ethyl (grain), no; alcohol—menthyl (wood), no;

amyl acetate, no; aniline oil, possibly; benzine, no; benzol (benzene), no; bone oil, yes; carbon disulphide, no; castor oil, rarely; coal tar, no; cocoanut oil (refined), yes; corn oil (refined), decidedly; cotton-seed oil (refined), decidedly; cylinder oil (mineral), no; ether—sulphuric, no; fuel oil, no; fusel oil, no; gasoline, no; glycerin, no; kerosene, no; lard oil (commercial or animal oils), decidedly; lard oil (pure), rarely; linseed oil, most decidedly; lubricating oil (mainly mineral), rarely; menhaden oil, most decidedly; mustard oil (wild) decidedly; naphthalene, no; neatsfoot oil, possibly; nitro benzol, possibly; oleo oil, yes; olive oil (pure), possibly; palm oil, yes; palm kernel oil, yes; peanut oil, yes; perilla oil, most decidedly; petroleum (crude), no; pyridine, no; rape oil (pure), decidedly; red oil, yes; rosin oil, decidedly; solvent naptha, no; soy bean oil, most decidedly; sperm oil, yes; tallow, yes; tallow oil, yes; toluidine, no; toluol, no; tung oil, most decidedly; turpentine, decidedly; whale oil, most decidedly; xylidines, no; xylol, no.

Testing Fire Hose

To the Editor:

Please advise your recommendations on the following:

A company engaged in the manufacture of heavy chemicals such as sulphuric, muriatic, nitric, etc., maintains fire equipment of a standard make consisting of hose carts with 250 to 300 feet of 2½-inch hose (4 ply) on each hose cart. Hose is tested to 400 pounds hydrostatic pressure before leaving the factory and is used in weekly drills with 100 pounds pressure on the mains (4 inch hydrants) from April 1st to October 1st. Approximate nozzle pressure at hydrant farthest removed from pumps is 55 pounds. In addition to 2½-inch hose, building standpipes are provided and equipped with 1½-inch hose of the same construction. However, no weekly drills are held with the 1½-inch hose and with the exception of very infrequent emergencies is not used when the 100 pound fire pressure is on the mains.

To what hydrostatic pressure and how often would you test hose of this construction under such conditions and would you test the 1½-inch hose at a lesser pressure than the 2½-inch hose?

Your early reply will be much appreciated.

J. B. W.

Answer: Rubber lined hose should be flushed out at least once every three months and subjected to a test once every six months. These pressures should be at least 150% (one and one-half times) the maximum pressure to which the hose will be subject to in service. Thus, if the pressure available in the fire pump in the plant to which you have reference is 100 pounds, the hose should be tested to 150 pounds.

Insofar as 1½-inch hose is concerned, this should be likewise flushed and tested. The test pressure for the 1½-inch hose should be 1½ times the maximum working pressure. As no pressure is stated in your letter, this you will have to figure out from data at hand.

Should the 1½-inch hose be unlined linen hose, it is best to either flush it or give it a pressure test. Such hose will last indefinitely if kept dry and not abused. On the other hand, if so placed as to be exposed to acid fumes or to contact with acid, it would be safer practice to test the hose every six months as you would with the rubber lined.

Chief Joe Williamson Dead

Chief Joseph A. Williamson, head of the Rushville, Ind., Fire Department for the past eight years and member for twenty years, died on June 14, after being ill for four weeks with pneumonia.

He had been troubled for some time with a cold that he caught early in May. About the middle of that month, he answered a call to fight a canning factory fire in Glenwood. Two days after helping at this blaze, he was removed to the hospital where his condition at that time was regarded as serious.

Chief Williamson was a member of the Modern Woodmen and the Old Fellows. He is survived by two brothers.

Rifle, Col., May Buy Apparatus—The council of Rifle, Col., are considering the purchase of fire apparatus.

New Chief Appointed for Bridgeport

At a meeting of the Board of Fire Commissioners at Bridgeport, Conn., held on June 11, Assistant Chief Thomas F. Burns, a veteran member of the fire fighting force in that city, was made chief of the department to fill the vacancy caused by the retitrement of Chief Daniel E. Johnson. The commission also filled other vacancies due to the advancement of Assistant Chief Burns.

Chief Thomas F. Burns, Bridgeport, Conn.

Captain Arthur T. Platt of Engine Company No. 6 was promoted to the office of assistant chief; Lieutenant Thomas J. O'Leary was advanced to a captaincy and Hoseman Philip Thompson was awarded a lieutenant's rating. Chief Burns has been a member of the Bridgeport fire department for the past 33 years. He was appointed a callman on June 25, 1895, and given a permanent berth February 10, 1896. His first assignment was at Engine Company No. 4 on Madison avenue as driver. He was promoted to a captaincy on April 16, 1908, On May 17, 1916, he was advanced to the office of second assistant chief and stationed at Engine House No. 6 in East Bridgeport. The new head of the Bridgeport department is 54 years old. He was born in Bridgeport on February 12, 1874. When 21 years old, he was appointed in the department and completed twenty years service with No. 4 Company before being elevated to a permanent assignment as assistant chief. Mr. Burns' appointment was heartily received by the entire Bridgeport fire department membership.

T. F. MAGNER.

Jersey City Wins Fire Cup Contest

The cup awarded each year by the Hudson County Safety Council to the fire department showing the greatest fire loss reduction, has been presented to the Jersey City Fire Department.

According to the committee that selected the winner, Jersey City, N. J., has reduced its fire losses about fifty per cent. The next best showing was made by West New York, which showed a decrease of forty-six per cent. Hoboken was third with .154 per cent, and Bayonne, the winner last year, fourth with .099 per cent. Union City is the only municipality showing an increase. That municipality showed an increase of .585 per cent after having made a close contest in the first year with Bayonne for the winning of the cup.

In its report last year the committee stated that a very fine analysis of the situation existing in each one of the five cities was taken into consideration, together with the fact that Jersey City's area, population, industries, pier property and conflagration has far exceeded that of any one of the four cities. Under these conditions the committee reported that the Jersey City Fire Department really made the best showing but unfortunately were too heavily handicapped by the conflagration of 1924. The contest is based on a three-year period.

In computing this year's results the committee made a departure by deducting shore front losses in Jersey City, Hoboken and West New York. In the report of his committee Mr. Nelson said:

"We did this because we believe that these shore front losses are hardly chargeable to the local fire departments due to the great inaccessibility to the properties involved and to the fact that no municipally-owned fire boat is operated on our Jersey shore front."

Mr. Nelson called attention to the fact that the total fire losses for the year 1927 in Jersey City, Hoboken and West New York was $2,352,103, of which $1,333,000 represents shore front losses.

The special committee in its report also stated that in its opinion the Jersey City Fire Department was entitled to particular commendation in view of the fact that they raised their decrease in loss from .02 per cent to 50 per cent, i. e., for the year 1927 they showed a decrease in loss of 48 per cent.

It is understood that the Stecher Cup will be formally awarded to the local fire department at a special Safety Council meeting in the near future.

FRAME PRIVATE SANITARIUM BURNS ENDANGERING LIVES OF PATIENTS

Hazards of Such Structures Emphasized by Fire—New York Fire Department Has Little Jurisdiction in Such Cases

By WM. JEROME DALY

A FIRE in Midwood Sanitarium at No. 19 Winthrop street, in the Flatbush section of Brooklyn on the afternoon of June 12 which necessitated the quick removal of thirty patients, mostly maternity cases, has again brought to light in official circles in New York City, three glaring facts:

1. The hazard of hospitals in frame structures.
2. The lack of jurisdiction by the Fire Department.
3. Flouting of the Fire Department's recommendations for additional safety.

The Midwood Sanitarium is a privately owned hospital, licensed to conduct its business by the City board of Health, authorized to be so occupied by the City Department of Buildings, and, so far as the Fire Department's authority goes, not in conflict with any fire department regulation.

The building is a frame shingled and clapboard structure, 50 x 75 (irregular) four stories with a cockloft and situated about 25 feet back from the curbline, with an iron fence around it.

It has a gabled roof, part of which is wood shingle and part composition tar, asbestos and grit—the lattter the result of two

The Midwood Sanitarium, Brooklyn, N. Y., After Fire Had Damaged the Structure. Note Frame Construction and Wooden Shingle Roof

previous fires in 1921 and 1923. The building had three fires previous to June 12, the third one having been in the cellar, due to sparks from the furnace. The other two were due to sparks from the chimney and a defective chimney flue, respectively.

The fire on June 12 originated in the roof beams and shingles, around the chimney, due evidently, to a defect in the brick chimney. The fire was discovered by a woman residing on an upper floor of a nearby apartment house at 80 Winthrop street. She telephoned to Fire Headquarters. A still alarm was sounded, bringing one engine and one ladder company.

The first fire officer to arrive instantly pulled the street box and telephoned information brought several ambulances and the Police Emergency Squad. Deputy Chief John Davin in charge of the fire fighting forces in Brooklyn arrived and as a precautionary measure only, sounded a second alarm.

Nurses, firemen and policemen removed all of the patients, some of them stretcher cases and others in chairs and convalescing. The fire dropped down to the fourth floor from the cockloft. Two lines were stretched up the front on ladders, two lines up the rear fire escape and one dry line up the only interior stairway, which is a wide open staircase of the private dwelling type. The house was once a homestead, but for the past fifteen years has been a so-called private sanitarium.

The duration of the fire was about a half hour. It burned an area in the roof of about 20 x 25 feet square. The patients were allocated to other hospitals via ambulance. Assistant Fire Marshal Richard Walsh, Fire Commissioner Dorman and Assistant Chief of Department Patrick Walsh in charge of Fire Prevention responded.

The first intimation the hospital attaches had of the fire was when the firemen rushed into the building. Fire Marshal Walsh ascertained that the handy-man of the institution had been devoting much of his days work to burning refuse and debris in the incinerator. The handy-man said he had been at that task since 6 o'clock in the morning, feeding the incinerator with the refuse of the place. It is thought, therefore, that the excessive heat, plus the high temperature due to a very hot sun that day, caused the fire to originate in the roof next to the chimney.

The rear fire escape did not have to be used as the stairway was available at all times. Two years ago the Fire Department, on the report of the Fire Company district inspector, recommended to the Building Department of Brooklyn that an additional fire escape be placed on the front of the building. That recommendation has apparently not been respected and there is nothing in the city ordinances that requires the Superintendent of Buildings to enforce such a recommendation on the owners or occupants of the building. The hands of the Fire Commissioner are figuratively tied by lack of jurisdiction.

It is now reported that the doctors in charge of the institution intend to demolish the building and replace it with a modern structure.

WHAT'S BURNING

THE following list includes fires of $25,000 loss and over in the United States and Canada, for the periods designated in the headings. These figures, compiled from telegraphic reports, are based on estimates made at the time, and are subject to latter investigation and consequent revision. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousands.

Week Ending June 15

MANCHESTER, N. H.—Ice house, Manchester Coal & Ice Co.. 80
LOS ANGELES, CALIF.—Residence of Mrs. L. Best..... 35
TORONTO, ONT.—Parsons, Brown Co., Ltd., premises..... 30
CAMPABELLO, S. C.—Plant of Southern Loom & Reed Works.. 80
ENNIS, TEX.—King Hotel destroyed..... 40
COLUMBUS, OHIO—Factory of Superior Die, Tool & Mach. Co. 65
ASHLAND, MO.—Six bldgs., business district..... 80
BRISTOL, CONN.—N. Main Street business block..... 80
SPRING LAKE, MICH.—The Pines hotel destroyed..... 40
ELWYN, PA.—Residence of H. R. Miller damaged..... 40
LOUISVILLE, KY.—Parkland Rubber Co. and adjacent property. 50
STAPLETON, NEB.—Business establishments destroyed..... 50
FOREST, ONT.—Maylor block damaged..... 25
WATERTOWN, S. D.—Olson-Lee Clothing Co. store damaged... 65
EGG HARBOR, N. J.—Factory of S. Winterbottom Sons..... 30
LOUISVILLE, KY.—Property of Mid-Continent Petroleum Co.. 65
PHILADELPHIA, PA.—Schlater Bakery, Frankford Ave..... 40
ERIE, PA.—Plant of Anderson Patterson Works..... 25
REEDLEY, CALIF.—Four fruit packing plants destroyed... 70
BLAIRVILLE, GA.—Residence of Bonnell Stone destroyed... 80
CRYSTAL SPRINGS, MISS.—Thomas grocery and adjoining property 30
BEATTYVILLE, KY.—Several business establishments..... 40
KENNEBUNKPORT, ME.—Rockwood Hotel destroyed..... 100
OMAHA, NEBR.—J. P. Block bldg. damaged..... 75
DETROIT, MICH.—Great Lakes Chemical Works damaged.... 80
WASHINGTON, IOWA.—Plant of White Yard Lumber Co.... 35
McALESTER, OKLA.—Tipple of Samples Mining Co..... 25
HOUSTON, TEX.—Phillips Furniture Co. bldg..... 40
EL PASO, TEX.—Baggage room, Sheldon Hotel..... 25
OTTAWA BEACH, MICH.—Seven cottages destroyed..... 80

Week Ending June 22

MAYVILLE, WIS.—Bldgs. on F. Lebner farm near here..... 25
SPROUL, PA.—Plant of General Refineries Co..... 25
HADLEY, PA.—29 cars oil and gasoline, N. Y. C. R. R..... 80
YOUNGSTOWN, O.—Mazda Lamp factory and adj. property... 40
ST. CLOUD, MINN.—Business property destroyed..... 50
FAIRBURY, NEB.— Business section damaged..... 125
WAYNESBORO, PA.—Property of Waynesboro Lumber Co.... 30
JOLIET, ILL.—Crete grade school bldg. destroyed..... 45
JEFERSON, IOWA.—D. Milligan elevator destroyed..... 25
DORCHESTER, ILL.—F. & T. Meyre Co. establishment..... 65
CALEDONIA, N. Y.—F. E. Holbrook factory destroyed..... 40
WISCONSIN RAPIDS, WIS.—L. Latin Clothing Co..... 25
BOSTON, MASS.—Whse. occupied by Atlas Stores..... 65
ELMER, N. J.—Bldgs on farm of John Carew..... 25
PETERSBURG, W. VA.—Atlantic Flour Mills destroyed..... 25
GENEVA, N. Y.—Property of Curtis Bros. rear of 63 Oak St.. 40
CALIFORNIA, PA.—Saeli and Stefanik properties..... 25
SIDNEY, N. S.—Redden, bldg. Charlotte St. damaged..... 40
CHICAGO, ILL.—Whse. of Philip Gollner Co..... 125
CINCINNATI, OHIO—Novelty factory, Ella St..... 25
BOSTON, MASS.—Three unoccupied houses, Dorchester district.. 25
LITTLES, IND.—Tipple of Neal Coal Co..... 80
WEST HARTFORD, CONN.—Property of Highland Dairy Co... 25
OSHAWA, ONT.—Flintoff & Sons warehouse destroyed..... 80
MONTREAL, CAN.—Polytechnic School of Uni. of Montreal.... 80
EGG HARBOR, N. J.—Old brewery bldg. owned by E. Hollander. 40

COMPLYING WITH A STATE COMPULSORY FIRE ALARM LAW

How Such a Statute Can Best Be Met in Small Cities and Towns Coded and Non-Coded Fire Alarms

By FRANK GILLOOLY*

OUR largest state in point of population has recently passed a law requiring fire alarm protection direct to the municipal fire department for schools, asylums, almshouses, and orphanages. It is more than probable that other states that have not already passed similar measures will shortly put into effect fire alarm protection for their schools and institutions.

Some of the larger cities already have such requirements in force. Many of the larger schools and institutions have voluntarily adopted such measures for the safety of the school children and the helpless inmates of hospitals and institutions. Yet in most of the smaller communities the same measure of protection has been neglected. Considering the comparatively low cost and no-upkeep expense of this protection, which is in direct connection to the local department electric fire alarm, there is every reason for making this act compulsory in every state in the country.

The new New York State law places under the direction of the fire department head, where such fire alarm box or boxes connecting into the fire department alarm system shall be located. The fire department having call or volunteer members, who are ordinarily about their daily pursuits, requires some form of public alarm that will help summon all members instantaneously. Upon the efficiency of this alarm is placed the responsibility of the fire department. The loss of lives and large property damage can be prevented best in the early stages of the fire, so upon the ability of the fire alarm system to summon the men and the apparatus quickly depends the safety of the community.

How Coded Type Alarm Operates

The Coded Type public fire alarm advises all members by coded signals the exact location of the fire in the shortest possible time. With this system the entire community can be charted off, box or zone numbers assigned to each essential location, whether actual fire alarm boxes are located there or not, and the exact location of every fire given in the number blown on the fire alarm.

By first roughly dividing the community into four or more general sections or zones, that zone number may be made the first digit of all box numbers in it, assuring a systematic way of assigning new numbers and always immediately indicating the general location of the fire. By means of a transmitter or master fire alarm box having portable code wheels for each box number assigned, located at central headquarters, any box number may be blown whether a fire alarm box actually exists at the location or not.

With this code fire alarm system (whether boxes be used generally throughout the district or whether a transmitter be located at central headquarters), a control circuit of two wires can be extended from this transmitter to the school, hospital or institution. One or more code fire alarm boxes bearing the code number of that institution can be connected, and any signals sent over those fire alarm boxes would automatically be transmitted over the public fire alarm.

Uses of the Non-Coded Alarm

In extremely small communities where the Code Type System would be unnecessary, the public alarm to be most effective should give a succession of up and down blasts employing the full sound scale of the alarm device. This alarm should be continued for a period of at least two minutes.

There are available control auxiliaries to accomplish this purpose. These can be furnished in the automatic cutout type so that after a period of two minutes operation the entire alarm system will cut out automatically and restore the system to normal again.

With the general alarm, non-coded type system, control stations in fire alarm boxes of the regulation key locked door, break glass front type can be located throughout the community. These control lines could be extended to the school or institution and the same type fire alarm station installed there.

Even if a non-coded system is being used, it is a good investment to install these control circuits throughout the district because at a later date, should the system be changed over to the code type this expense in the installation would be saved, as the same control wires could be utilized for the new system.

A distinctive signal to denote the particular school or institution sending in the alarm can be accomplished by means of semi-code type fire alarm boxes whereby that alarm would consist of a definite number of blasts on the public fire alarm.

The fire alarm box connecting to the local fire department should preferably be located on the outside of the building near the main entrance. It is then available both to the people inside the institution and to citizens on the street. It makes it unnecessary for the fire department wires to go inside the building, and also terminates the maintenance and repairs of the fire alarm system outside of the building.

Auxiliary Master fire alarm boxes are available that can be located outside the building to be operated by a citizen on the street, but also having a control circuit. The wires of this control circuit are extended throughout the building, any number of small break glass fire alarm stations are installed, the operation of any one of which will trip the master box and send that number in on the fire department alarm system.

How Code Numbers are Helpful

In assigning number to schools and institutions, it is best to make their number distinctive from the ordinary numbers on the street, and if two digit numbers such as 12, 23, 41, etc., are used for ordinary street fire alarm numbers, three digit numbers may be used to denote the school or hospital such as 121, 231, 321, etc. In assigning numbers to the institution it is best to keep only one code number to denote the whole institution and if more than one fire alarm box be used in the institution, all of them to have the same number.

Of course, if the institution is so large that there might be a great loss of time in locating the source of the alarm, then it would be advisable to give some of these stations definite numbers of their own.

The Significance of the New Law

Besides the obvious meaning of the new law that every fire chief realizes, there are one or two exceptional features of it that deserve our comment.

The interest in public safety that is reflected in this new law, shows the trend of the times to the elimination of all chance means of escaping the horrors of fire damage to the weak and helpless asylum inmates, and the thousands of school children who place implicit trust in the fire department.

If the loss of lives is not enough to awaken some of the private owners of these institutions, surely the wide-spread publicity of the mounting property fire losses throughout the country should make them realize the importance of adequate fire alarm protection.

Whether you, as a New York State Fire official, must enforce the law that leaves this responsibility to your conscience, or whether you are an official in some state that has not as yet taken this important step, all should give this matter the most serious consideration.

Portland Chiefs Presented With Badges

Chief Grenfell and Battalion Chief Haines were presented with gold badges by members of the fire department, in the presence of many chiefs who were invited to a dinner arranged for that event.

Two banquests were arranged so that all men could assemble to do honor to Edward Grenfell and C. O. Haines, both newly appointed. About 250 firemen attended each event. Judge Jacob Kanzler, honorary assistant chief of the bureau, was toastmaster. The badges were presented by Commissioner Bigelow who has charge of the bureau. Besides Chiefs Grenfell and Haines, short talks were made by Mayor Baker, Jay W. Stevens, fire marshal of California, Lee G. Holden, ex-chief of Portland, and others.

Fireman paid a silent tribute to B. F. Dowell, ex-chief who died recently.

Saginaw Loses Compensation Suit

A fireman who dies from the effects of inhaling smoke does so because of occupational hazard and not from accident. This ruling was made by the compensation board in the suit to collect compensation from Saginaw, Mich. Under the laws of Michigan, inhalation of smoke in fatal quantities by a firemen constitutes a compensable accident.

Ford City, Ont., Defeats Station Bonds—The plan to issue $55,000 bonds for the construction of a fire station in Ford City, Ont., Canada, has been defeated.

* Sterling Siren Fire Alarm Company.

FIREMEN GUARD NEARBY STRUCTURES IN BUILDING FIRE TO TEST SAFES

National Capital Department on Hand When Bureau of Standards Fires Two Condemned Buildings—Some Valuable Data Will Result

A FIRE which the Fire Department did not lift a finger to extinguish, ocurred at Washington, D. C., at 5 a. m., on June 17. It was not the result of a strike on the part of the fire-fighting forces of the National Capital, for they were active in guarding

The Basement of One of the Buildings After the Fire, Showing Some of the Safes After the Debris Had Been Removed

structures in the vicinity from taking fire from the intense heat thrown off by the burning structures.

The reason for this unusual condition was a test by the United States Bureau of Standards to find out the heat resisting qualities of safes. The two structures burned were the only remaining ones in the square facing the Postoffice Department and New National Museum Building, all others having been razed to make way for the huge new Internal Revenue Building which the Government will soon erect on this and adjoining plots.

The Buildings Burned

The structures burned were the old building of Bolgiano & Co., seed merchants, at 1009 Little B Street, N. W., and that of William Jane & Sons, dealers in poultry. Both structures were vacant when the fire was set. The former was particularly well built, with substantial walls of brick, 14 inches in thickness, and was five stories in height. The Jane building was of two stories, also built of brick. The safes were distributed throughout the five floors of the Bolgiano building, and were found buried in the debris in the basement, after the ruins had sufficiently cooled to remove them.

A roof composed of metal had been specially constructed over the larger building by the Bureau officials, in order to retain as much heat as possible within the walls of the structure, and make the test as realistic as possible. Attached to each safe was a thermostat and an alarm clock. The object of this was to record the temperatures and time when the fire reached the safes. Outside, in a small structure, communication had been established with the instruments on the safes, in order to record the temperature.

By special arrangement with the Washington Fire Department, under command of Chief Watson, eight chief officers and some 200 men with a large number of apparatus, including two water towers, were on hand when the hour for the fire to be set approached. As soon as the fire started, the lines were turned on the nearest buildings, and all that were at all in danger were carefully protected from the blistering heat of the burning structures. This proved so intense that spectators were forced back some distance from the fire, and, in spite of the fact that there was practically no breeze, a wind was created by the fire which drew the air in from the west and showered cinders on the eastern side of the buildings involved. Miniature tornadoes were also noticed, which whirled dust and dirt in spirals around the streets in front of the fire.

Buildings Quickly Consumed

A feature which surprised both the Bureau and the Fire Department officials was the rapidity with which the two structures burned. The men of the Bureau had calculated that the fire would probably last about three hours, but within forty-seven minutes the walls had fallen outward and the interiors had become glowing cinders. It was stated that the fire, starting on the first floor of the Bolgiano building, took only three minutes to involve the upper story of the structure. The recording instruments showed that the maximum temperature reached 2,400 degrees Fahrenheit. The fire leaped from the first floor, through an elevator shaft, to the fifth or upper one, where it mushroomed, and

Buildings That Burned Without Any Attempt at Extinguishment

Two buildings in the midst of the business section of the National Capital, burned by the U. S. Bureau of Standards, in order to test the heat resisting qualities of safes.

then involved the other floors in reverse order, working downward. The extreme heat caused the walls to expand, forcing them outward in each case.

The results of the test on the safes is to be made the feature of a special report to be issued by the Bureau of Standards.

New Pumper Placed in Service at Gloversville—A 750-gallon Seagrave pumper has been placed in service in Gloversville, N. Y. The department now consists of fourteen paid men and the chief.

OF INTEREST TO VOLUNTEER FIRE DEPARTMENTS

MORE COMPANIES CAN RESPOND UNDER FIRE ASSOCIATION PLAN

Fire Departments in Definite Area Grouped to Make Second and Third Alarm Response Possible—Saves Runs for Small Fires

WITH the development of the science in fighting fires, has come the scheme for grouping fire departments in certain areas in order to work out plans whereby one fire department will help another in case of a large conflagration.

At the present time in most volunteer fire departments, when the siren blows or the fire alarm signal sounds, all companies rush to the scene at once. Units try to be the first to reach the burning building. But all this rush leaves the major portion of the town unprotected should another alarm come in while firemen are busy fighting the first fire. In such cases, two things are necessary—either some companies may be ordered from the first blaze to cope with the second alarm and thereby cut down the men and apparatus available, or a call may be sent to nearby towns for assistance. In some places such a move means paying the charge demanded for answering out-of-town calls.

In order to avoid this possible condition, fire associations are being formed and have been organized to help one another in case of large fires. They do more than this. Although the small town department is not patterned after the large city, the fire association makes first, second, and third alarms possible without any confusion. The group is organized knowing that in return for helping a neighboring town, the nearby communities will assist them when conditions require such aid.

The first step in this organization is to determine the area that will be included in possible membership. After all companies in that district have signified their intention of forming a mutual aid association such as these fire associations are, the big step that remains is to draw up a running card. That is the difficult thing.

Such cards prevent confusion. Should Springfield, for example, have a large fire calling for second alarm response, aid may be rushed from Yorkville and Newtown. Although Center may have a large department, it would be useless to send its men because of the long run necessary in reaching Springfield and the time required. But Center may be made to serve by other means. If apparatus from Yorkville and Newtown are rushed to aid the stricken community, the two assisting towns are left with limited fire protection facilities. Center is required to move into some fire house central to both communities to furnish protection while some of the apparatus is away.

The fire association is nothing more than one large fire department, but instead of protecting one town, the association furnishes protection to a large area that comprises a number of towns and villages.

Some chiefs have argued that this only results in confusion. There is so much apparatus at a large fire that companies get in one another's way and there are not enough hydrants for the various engine companies to connect with. That is a matter entirely up to the chief in command at the fire. Should he feel that too many companies are waiting around for orders, he should order those deemed in excess, back to their fire stations.

If not properly organized, a fire association like that described may result in so much confusion that it will defeat its own aims. But that is not the fault with the plan but with the ones who devised the running card. On first alarm response, there is no outside protection furnished; on second alarms outside companies move in, and other towns answer alarms from areas thus left unprotected; on third alarms, there is a further moving in of apparatus.

In many districts at the present time, before apparatus can be sent to an out-of-town call, it is necessary to get in touch either with the fire chief or the mayor or one of the fire commissioners. Where an association has been formed, all this "red tape" is eliminated. Membership in the group means that sanction has been given to the plan of taking apparatus outside the village or town limits. Many valuable minutes are gained. There is no rushing about looking for the chief or the mayor. There is no worry as to whether a nearby community will furnish aid. There is no fear of leaving an area unprotected.

A fire association was formed to include a seashore resort. Fire broke out. Seashore resorts generally develop into bad fires, and this was no exception. The chief of that town admits were it not for the assistance furnished by the association and efficient plan that had been developed for moving in companies, a great deal of the town would have been destroyed.

Try the plan for several months and see how it works out.

Students Burn Their Sorrows

A supposedly private "burning" was arranged by students at Stevens Institute of Technology in Hoboken, N. J., to forget some of the difficult courses of the year. To be exact, an effigy of calculus was to be thus dedicated to the fire.

Firemen who cram hydraulics, problems in administration, laws and ordinances, and industrial hazards believe no phase of education could be more difficult. But students enrolled for engineering work dread the coming of calculus, a course of higher mathematics. No wonder, then, after the prescribed term of instruction had ended, that an effigy should be burned to symbolize sleepless nights and studious hours.

But firemen from Hoboken thought otherwise. No party centering about a bon fire could be staged without inviting them. They came, although the students did not send for them. Firemen commenced to play hose streams on the fire.

Students rushed the firemen, captured the nozzle and turned it on the fire fighters. No serious damage was done although every one got wet.

And although burned in effigy, calculus remains to torture the oncoming class of would-be engineers.

Oakley, Cal., Wants to Form Fire District—A petition was presented in Oakley, Cal., asking for the formation of a fire district and the purchase of fire apparatus.

Bayonne, N. J., Awards Station Contracts—Awards have been made for the construction of two new fire stations for Bayonne, N. J.

Looking for a Safer Match—The Bureau of Standards is carrying on experiments in the hope of finding safer matches. It has been noted that the average life of a lighted match is about thirty seconds. But from six to fourteen seconds are required to satisfactory light a cigar or a pipe. Any part of the match that burns after this function has been performed is responsible for most of the fires attributed to matches. It has been estimated that 500,000 matches are used in the United States every minute, and a fair idea of this hazard may be obtained.

FORMATION OF LOCAL ARSON SQUADS HAS GOOD EFFECT ON INCENDIARISM

How Such Organizations, Under Direction of Fire Chief, Can Reduce Arson—Some Methods and Results Accomplished

By D. C. DARROW
Special Agent, National Board of Fire Underwriters*

LOSS of life and property from fire being a colossal burden borne by each community in greater or lesser degree, according to amount of loss, it follows that each community has a vital interest in the reduction of fire loss within its own compounds, and, inasmuch as each civilized community is taxed to cover expense of public institutions organized, equipped and maintained for the protection of life and property within their operative jurisdiction, the fact that said institution should function in an effort to *prevent* fires (as well as to extinguish them) must be apparent. It must be apparent, also, that until the suppression and prevention of incendiarism, specifically, engages the attention of the various institutions operated at public expense for the protection of life and property, said institutions have not yet reached the peak of efficiency. This for the reason that incendiarism is directly responsible for a major part of the fire loss suffered in this country; and for the additional reason that incendiarism is the type of fire origin most amenable to suppressive and preventive measures when the same are properly applied.

Observation and experience have taught those of us who are professionally concerned with fire loss that fear of law enforcement is the greatest known deterrent to the incendiary. The mere placing of a law upon the statute books is not sufficient. To be effective, the law must be vigorously administered. Thus it happens that of two physically similar communities in the same State, one shows a very considerably larger fire loss than the other notwithtsanding that the same laws apply equally to both. This because in the community showing the lesser fire loss, the authorities are active, while in the community showing the greater fire loss, the authorities are inactive.

Points in Suppression of Arson

There are four separate and distinct salient points in the suppression and prevention of incendiarism, as follows:

First—A public investigation.
Second—An arrest resulting from above.
Third—A prosecution in criminal court, regardless of result.
Fourth—A conviction.

Disadvantage of Insurance Interests in Prosecution

Every investigation has value no matter by whom conducted; but investigation of a criminal case by a paid representative of insurance interests, falls far short of the good moral effect of an investigation conducted by duly constituted local authorities. The possible effect on a jury of mention of insurance interests, is well worthy of profound consideration. A legitimate prosecution conducted by the public prosecutor may lose much of its virtue if the jury learns that the facts were developed by a paid representative of insurance interests. All too frequently the lawyer for the defense is able to convince the jury that the prosecution is, in reality, persecution by the particular insurance company that carried the risk. It has to be a strong case, indeed, to overcome that obstacle, when it is borne in mind that unanimous verdict of the jury is required to convict. The same evidence that results in conviction when handled exclusively by local authorities, will, in many instances, be quite insufficient to convict when a paid representative of insurance interests is involved therein.

Let us, as an economy of time and space, omit reference to those isolated regions which are devoid of community interest by reason of scant population, and also, those densely populated communities that are already provided with highly organized, adequately manned and well financed fire and police departments, State Fire Marshal departments, and the like, and let us confine our attention to that vast middle ground wherein, perhaps, our efforts can be expended to best advantage.

Organization of the Local Arson Squad

In the territory within the scope mentioned, suppression and prevention of incendiarism is best accomplished by the organizing of a Local Arson Squad and the subsequent vigorous functioning of the same. The duties of such Local Arson Squad would, of course, be the thorough investigation of all cases of suspected, alleged and/or known incendiarism, perpetrated or attempted. The particular purpose of such Local Arson Squad would not only be to bring before the public prosecutor evidence of incendiarism in such wise that reference to insurance interests be eliminated, but also to exert a deterrent moral effect upon such of the general public, if any, as may contemplate committing the crime of incendiarism.

A further purpose would be to influence the general public toward a better understanding of the enormity of the crime of incendiarism, to the end that pertinent information may be more easily developed and witnesses may be less reluctant to testify. Still another purpose would be to bring those of the general public who are eligible to jury duty, to a realization of their responsibilities, and to instill into them the paramount idea that a juror should render his verdict on merit and not on sentiment.

The active operation of a good Local Arson Squad is likely to accomplish all this by direct contact. By indirect contact, a good active Local Arson Squad can exert an enormous influence toward correcting the evils of political favor in connection with court procedure in some localities and can, furthermore, acquaint the general public with the fact that incendiarism is a crime against the community—not a crime against any individual or any corporation.

Fire Chief Should Head Squad

In organizing Local Arson Squads, the Special Agents of the National Board of Fire Underwriters must, of necessity, be governed by local conditions. There are, however, some general rules that have been found applicable. The most important of these relates to the head of the Local Arson Squad. Except in isolated instances, the Fire Chief is the proper official to assume that responsibility and the balance of the Squad can best be recruited in accordance with his recommendations.

In the final analysis, it is to the Fire Chief and not to the Police Chief that the public looks for protection from fire. It is to the Fire Department and not to the Police Department that fire loss is charged. It is the lives of firemen and not the lives of policemen that are endangered fighting fire. For these reasons any movement that has for its ultimate object the prevention of fire must be of keener personal interest to a Fire Chief than to a Police Chief. Furthermore, a Police Chief not only is (or should be) equally interested in all crime, while a Fire Chief is interested in the crime of incendiarism exclusively; but a Police Chief, in consequence of diversified duties, has much less time at his disposal than has a Fire Chief. Hence, when long continued, persistent effort is required to

(*Continued on page 562*)

* Excerpts from a paper read before the annual convention of the New York State Association of Fire Chiefs held at Troy, N. Y.

Test of Los Angeles Pumper

Modern high office building construction has brought with it the problem of how high the fire department apparatus is capable of delivering water. In Los Angeles, Cal., the department found that water could be lifted five hundred feet. Four pumpers were placed on the main street side of the city hall where the test was made, and water was forced into the building's standpipe. Water was forced in at a pressure of 350 pounds, and it left the nozzle at a pressure of 100 pounds. The upper photograph shows the four engines connected in series in order to build up the water pressure to 350 pounds; at the right is the city hall tower with the test streams in action.

Atlanta Department—A Long Service

(*Continued from page* 546)

controversy, two big fires brought the crisis to an issue and it resulted in a trade between the city and the volunteer fire department. The details of that trade were very much like any trade would be between any two individuals. All the property, real and personal, which had been utilized in fighting fires, belonged to the fire companies. They agreed to surrender a reasonable part of it providing the city would relieve them of further responsibility against fire-fighting.

The necessary legislation went through general council. It was generally conceded by every member of that body, as it was known by the volunteer fire department, that Atlanta could not support a paid department as large as was the volunteer department. It was on July 6, 1882, that the volunteer department, consisting of five engine houses and one hook and ladder house, ceased to exist. At midnight, the paid department came into being with two engines and one hook and ladder company. Old Atlanta No. 1 went from the volunteer into the paid department in its Broad Street home. The other engine company, Mechanics No. 2, was planted on Washington Street, where it had had its home since its creation. The hook and ladder company remained in its own home on Broad Street, near Atlanta No. 1.

Matt Ryan First Paid Chief

Matt Ryan, a former merchant, who had long been a member of the volunteer department, was elected to the head of the new department as chief. He inherited a man's size job; and he found himself in hot water continuously. Right from the start, he was called upon to meet some of the gravest situations in the fire history of the city; and he found himself with a greatly depleted equipment, and one that was by no means equal to the task of protecting the rapidly growing city of Atlanta.

Joyner is Chosen Chief

In 1885, W. R. Joyner was elected chief. He had been for many years a volunteer fireman, and had served three terms as chief of the volunteer department. He was one of the most popular men that the department had ever known, being respected and loved by all the force, and by the entire population of the city as well.

Chief Joyner set to work with a will as soon as he was elected, and for twenty-two years, he pushed forward a perfect department both in personnel and equipment. He came as near to achieving both as any man could have done under the circumstances. He began to plan and devise ways and means for the improvement of the service from the first day he was elected. His plea for additional equipment was constant and insistent.

Water Supply Improved

Chief Joyner had paid particular attention since his induction into office to the water supply of the city. He found it coming from Lakewood when he first went in. There was an old pumping engine there, and the water was pumped directly into the lake across the road, and there it was stored. Only one main carried the water from the reservoir to the city, and as time went on, it became more and more subject to breaks. When these occurred and the water was shut off until they could be remedied, the city was left at the continual mercy of the flames if any should, at an unfortunate moment, break out.

The chief went before council on the subject first in 1886. He was roundly laughed at by the councilmen and property owners alike at that time. But he kept the matter before their attention, for he realized the seriousness of the situation and the absolute need of greater and more dependable water resources in order that the city be fully protected at all times. Two or three serious fires came along during his campaign, in which the limitations of the water supply were keenly felt and were directly responsible for the losses which were suffered. After two or three sad examples, a pumping station was erected on the Chattahoochee, which pumped a great volume of water into reservoirs on the outskirts of the city on Howell Mill Road. This has later been improved upon until now the supply is fully adequate to meet the needs of the department.

Oakland Patrolman Exhibits Remarkable Strength

George Haas, who claims to be the strongest policeman in the world, gave proof of his bid for such honors by pulling a nine-ton fire truck with four firemen aboard, by his teeth. Nor is that all that he can do. He bends horseshoes with his teeth, lifts and carries four firemen, tears telephone books and decks of cards with his hands and does other stunts to exhibit his extraordinary strength.

Fire Chief is Chosen Mayor

In 1907 the great popularity of "Cap" Joyner, not only in the fire department, but in the city as a whole, was fittingly illustrated by his election to be mayor of Atlanta. His acquaintance throughout the town was practically universal, and he was loved and respected by all who came in contact with him. He was number three of the original "Bell House Boys."

W. B. Cummings Becomes Chief

Chief Joyner was succeeded by W. B. Cummings, who previous to that time had been a lieutenant attached to Chemical No. 1 at headquarters. The new chief at once picked up the work of building up the department where his predecessor left off. The first year of his leadership was signalized by the opening of Station No. 11 on North Avenue between the Peachtrees. This new station was sorely needed to care for the immense residence district which had grown up over a vast area in the northern section of the city.

Since that time, the equipment of the department has been constantly increased. Engine Company No. 12 at Oakland and DeKalb was organized in 1910. No. 14, at Lee and Avon Streets, Oakland City, followed in 1912. The much needed North Side Station No. 15, at West Peachtree near Fourteenth, came in 1914. And in the following year, No. 16, at Marietta and Boss Streets, was organized.

The first motor equipment was introduced in 1910, with the formation of No. 12, when a Webb combination chemical, hose and pump automobile was assigned to the new station. Since that time, there has been a steady increase in this method of equipment.

Chief Cody a Born Fire-Fighter

In the present chief, William B. Cody, Atlanta has a man of unswerving ideals as a man and unflinching loyalty to his job. He is a fire-fighter to the core of his being, a thorough, absolutely competent official, and a leader who takes a personal pride in his department and in his men.

Chief Cody maintains that his career as a fireman began several years before he got inside a fireman's uniform. While a small boy in Warrenton, Ga., near which he was born and raised, he one time saw a Macon company en route for a tournament in Augusta. Their train halted for some time in the little town, and he went down, with all the rest of the inhabitants, to see the sight.

The impression which these red-shirted, laughing fellows had upon the boy's youthful imagination was extraordinary. "I had never seen such a jolly bunch of fellows in all my life," the chief remarked, in recounting the old days. "They got out of the train, played jokes on everybody in sight, spanked a notorious village character, and cut up Jack generally. Right then and there, I said to myself: 'Son, this fireman's life is the life.' But I little dreamt when I said it that I would devote practically the rest of my days to fighting fire!"

He came to Atlanta as a youth of eighteen in 1876. The two boys with whom he was associated were members of Altanta's volunteer fire department, and they very soon convinced him that it was the thing for him to do to join without delay. So the fall of 1876 found him duly enrolled as a member of old Mechanics No. 2, whose house was then on the corner of Washington Street and Waverly Way.

At that time, he little dreamed that he would stay in Atlanta for long. He made one trip south which kept him away for several months, and returned just in time to take his place in the great Fourth of July parade of the year 1878. At that time, Young Cody already had exhibited perfect familiarity with handling the horses, since he had ridden and handled horses over since he could toddle. He also had mastered the mechanism of the engine and was capable of taking the engineer's place without any difficulty whatsoever. So he accepted this paid position with Mechanics Company and settled down to a life which from that day to this has kept him in active service

fighting the flames which have threatened the lives and property of the residents of Atlanta.

Cody's Long and Splendid Service

He is today the only man in the department who, entering in the volunteer days, has seen continuous service since that time. He is senior of the department not only in rank, but in service also.

After three and a half years with the Mechanics Company, he was offered the position of driver with Tallulah Company No. 3, whose house stood on the site of the present Grant Building on Broad Street. Since the offer carried with it a considerable increase in pay, he transferred his allegiance to No. 3, and he was with them a few months later when the volunteer department ceased to exist, and the paid department came into being.

In the reorganization which followed the change of management, Chief Cody went as driver to new No. 1, which was housed on Broad Street at the railroad. He moved with his company to its new and present quarters in 1891; and in 1892, he was promoted to the rank of lieutenant. During the latter part of 1895, he advanced another grade to the rank of captain. In 1901, he was transferred to No. 4, on North Pryor Street, and remained as captain of this company for fourteen years, until his election as chief of the department by council on the sixth day of July, 1915.

Chief Cody was quite seriously injured in a fall from the second floor of the Arlington Apartment House to the basement, during a fire in that structure on October 30, 1925. Three of his ribs were broken, but after a siege in the hospital, he regained his old time vigor and was none the worse for his experience.

In all this long service, Chief Cody was never reprimanded nor did he ever receive a demerit. His record has been clean, consistent, and the embodiment of faithful service. He has, first as captain of a company, and then as chief of his department, inspired his men to similar standards.

Fresno Considering Underwriters' Report

Recommendations made by the National Board of Fire Underwriters in their report, are being considered by the city council of Fresno, Cal. It has been estimated that if the recommendations are followed, it will cost the city $200,000 the first year and the fire department salaries will cost $100,880 additional, the succeeding years.

The report urged that night crews of engine and ladder companies in the high value district have not less than eight men. At present the night strength of each company is made up of five men. With the present firemen's pay of $165 a month, this means an additional expense of $35,640 a year.

Another recommendation of the underwriters was that two additional ladder companies be created, one in the high value and one in the low value district, and that a water tower be installed. If this recommendation were carried out it would mean the addition of thirty-three new men, including three new captains. Thirty of the men would be paid $165 per month and the three captains $190 per month, meaning that $66,240 would be added to the salaries of the department, bringing the total salary increase to approximately $102,000 per year.

Purchase of new equipment recommended by the engineers of the underwriters would swell the first year's expenditures to approximately $200,000. Two new ladder trucks for actual use and one for reserve would be purchased, as would a water tower.

In addition, the underwriters recommended that additional hydrants be installed, new alarm boxes put in place, and a large quantity of new 3-inch hose bought to replace the present smaller sizes.

The fire department budget for the 1928-29 fiscal year contains none of these additions. It shows a decrease of about $11,000 under the budget for the present year.

Mayor A. E. Sunderland, although he has declined to comment upon the report since he has not as yet had sufficient time to study it, has given no indication of accepting the recommendations nor has be indicated that the department will be cut.

Hope to Standardize Fire Apparatus—Several conferences between the Bureau of Standards and manufacturers of fire apparatus have been held to try to standardize fire apparatus manufactured to five standard pumping capacities. Recommendations were made at the convention of the Fire Department Institute at Hot Springs, Va., in May. A general conference of manufacturers, distributors and organized users will be arranged at some time in the future.

New York City Presents Valor Medals

Firemen of New York City, to whom the Board of Merit of the Fire Department awarded medals for valor, discipline, efficiency and general administration during the year 1927, had the novel experience of having some of those decorations pinned on them by Capt. Emilio Carranza, Mexican aviator, whose flight to New York ended coincidently on the same day, June 18th. He was received at the City Hall by Mayor Walker at the same hour as the firemen medal ceremonies.

For the first time in the history of the New York Fire Department, the Fire Commissioner paid public tribute to the general gallantry and bravery of the whole fire fighting force when he wrote into the published booklet containing the list of citations, the following:

AN APPRECIATION

Again is here recorded on the pages of the History of the New York Fire Department, another annual chapter in the long chronology of the deeds of valor and the heroic service of the members of the New York fire fighting force.

In approving the findings of the Board of Merit contained in the selected list of citations herein published, I am not unmindful of the innumerable collective acts of heroism performed throughout the year by scores of wearers of the blue.

The accompanying list is but a pattern of the fabric selected by the Board of Merit as typifying the structure of the entire personnel of this department.

The fidelity, the courage, the risk and often the personal sacrifice on the part of the members of the New York Fire Department, that life might be spared and property preserved are almost daily events in our great cosmopolitan life.

To those whose deeds of daring are here recited, I extend warmest congratulations; to those others to whom the opportunity did not come to perform some unusual act of personal valor, I can only add—*Who Can Say—"The Bravest"!!! When All Are Brave!*

JOHN J. DORMAN,
Fire Commissioner.

Plans Made for Southeastern Convention

(*Continued from page* 548)

Friday, July 6, 9.30 A. M., Session, Auditorium Armory

Reports of Committees.

Topic No. 2, "Fire Prevention—Inspections—etc.," Chief D. W. Brosnan, Albany, Ga.

Topic No. 3, "Community Fire Fighting," Chief Jno. H. Monroe, Savannah, Ga.

11.30 A. M.

Official photograph will be taken at Auditorium Armory.

2.30 P. M.

Unfinished Business.

Topic No. 4, "Volunteer Fire Departments—Care of Equipment—Drills," Hon. Sherwood Brockwell, Asst. State Deputy Fire Ins. Comsr., Raleigh, N. C.

Topic No. 5, "Speed of Apparatus Answering Alarms," Chief R. A. Foster, Norfolk Navy Yards, Portsmouth, Virginia.

Demonstration of Fire Department Accessories.

8.00 P. M.

Banquet and Ball—Ansley Hotel Roof Garden. Toastmaster, Hon. Eugene R. Black.

Saturday, July 7, 9.00 A. M.

Unfinished business; Election of officers; Selection of Convention City for 1929.

11.00 A. M.

Demonstration Foamite Devices.

12.30 P. M.

Busses leave both Auditorium Armory and Ansley Hotel for Barbecue at Stone Mountain, Georgia.

Hart, President of Minnesota Firemen—Ralph G. Hart of Pipestone has been elected president of the Minnesota State Firemen's Association. The 1929 convention will be held in Pipestone.

Delaware Firemen to Meet in Milford—Plans have been made for the eighth annual convention of the Delaware State Firemen's Association which will be held in Milford on July 11. There will be a parade late in the afternoon and a banquet in the evening.

Work Started on Chicago Fire Station—Ground has been broken for a new fire station in Chicago, Ill. The house will be completed November 1 and will cost $55,000. Residents of Gresham and Auburn Park have been clamoring for a new fire station to replace the decrepit frame building that has been in use for many years.

Chief Denger Observes Birthday—Chief Peter Denger of Davenport, Ia., observed his seventieth birthday. Since last November he has been confined to bed but he has kept in constant touch with fire department affairs. On May 9 he celebrated his thirty-ninth year as a member of the fire department. His many friends hope for the chief's former good health to return.

Formation of Local Arson Squads

(*Continued from page 559*)

overcome obstacles that interfere with the rapid progress of an investigation pertinent to fire origin, a Fire Chief is better qualified in the matter of available time than is a Police Chief, with the added advantage in favor of the former that he is more likely to direct the work in person than is the latter. It is assumed that some member of the police department will be on every Local Arson Squad. It is assumed, also, that every Fire Chief can and will call upon the local Police Chief for whatever further aid he needs. And it is assumed that the response from every police Chief will be immediate.

It may properly be mentioned at this point that in States maintaining a Fire Marshal, the intention would be for the Local Arson Squad to supplement, and not supplant, that official.

Civic Body Should Be Interested

A Local Arson Squad having been organized, perhaps the most efficacious way to insure its zealous functioning is to enlist the active cooperation of some influential civic body, such as Chamber of Commerce or Board of Trade. In the strata that comes within the scope of this article, some encouraging stimulus is very frequently advisable. And thus, we are brought to a consideration of how best to arouse, and, once aroused, how best to hold, the interested attention of whatever civic body seems most likely to answer the desired purpose.

How Fire Prevention Committee Would Function

Interest having been aroused by the prospect of reduced fire loss, with attendant advantages, suggestion of ways and means to achieve the desired result would naturally be in order. Perhaps the best method of procedure is to have appointed from the interested civic body a Fire Prevention Committee, in event none such is already in existence. Once contact with this Committee has been established, the Local Arson Squad idea should be carefully explained and, when that is thoroughly understood further recommendation should be made to the effect that this Committee urge the local administration to resuire a rigid investigation of *all* fires in an effort to determine the origin of each. The advantages of such procedure are many and obvious. If faulty building construction is responsible for a fire, the matter can be referred to the proper local authorities for such attention as will minimize the prospect of future loss from the same or similar cause. If carelessness is responsible, the aid of the press (easy for Chamber of Commerce or Board of Trade to secure) should be invoked in the spread of propaganda designed to reduce future fire loss from that cause to a minimum. In event incendiarism is judged to be responsible, the Local Arson Squad functions.

Three Arson Squad Methods in Use

The illustration of three methods now in vogue of assuring local investigation of all fire losses, perhaps would afford the briefest and most lucid manner of covering the subject. In a certain town with population of approximately 10,000, with small paid Fire Department, supplemented by volunteers, the City Council requires the Fire Chief (who is head of a very efficient Local Arson Squad) to investigate every fire and report origin to Fire Prevention Committee, Chamber of Commerce. Another method exists in a certain city of approximately 150,000 population with well organized Fire Department, in which the City Commission has passed a law authorizing the appointment by Fire Chief (who is head of a splendid Local Arson Squad) of a City Fire Marshal, with commensurate salary and adequate authority, whose duty it will be to investigate each and every fire, reporting origin to the Fire Prevention Committee, Board of Trade. This was brought about by activities of the Fire Prevention Committee of the Board of Trade. In another city of a present population estimated at 100,000 to 125,000 there is a Bureau of Fire Prevention maintained as a unit of the Fire Department. It is under the direction of the Third Assistant Fire Chief (Head of a Local Arson Squad that leaves nothing to be desired) and is composed of a varying number of Inspectors operating under a Captain. Each Inspector covers an allotted territory and is required to investigate every fire that occurs in this territory. The writer ventures to doubt that more effective arrangements than these three, each ideal for the community represented, are possible.

Publicity and Literature

No article on Local Arson Squads would be complete without reference to the very urgent need for literature designed to promote the idea. Such literature should cover the entire range of Incendiarism and should be liberally distributed to all Secretaries of Local civic bodies, to all Fire Chiefs, Police Chiefs, Sheriffs and State Fire Marshals. Also, the Head of each Local Arson Squad should be made the target for personal correspondence designed to encourage enthusiasm for the noble work upon which he is engaged.

"Pep" and not conservatism is needed in the promotion of this work and the most vigorous cooperation by all interested therein is needed to carry it to a successful conclusion. One luke warm individual can do much to offset and nullify any good resulting from the time, thought and energy expended gratuitously in the furtherance of an idea that may well be developed into a potent factor in fire prevention.

It is conceded that when the Local Arson Squad becomes a universally recognized institution, the firebug will cease to be one!

Big Ohio Chiefs' Meeting

(*Continued from page 550*)

chinery of the Columbus Fire Department. Mr. Winnard outlined the history of fire fighting from remote times, recited experiences gleaned from his travels about the state on standardization work, and urged the chiefs to avail themselves of the free engineering service given by his organization.

The Tuesday evening session was in conjunction with the Ohio Association of Electrical Inspectors and was called to order by the president, F. O. Evertz, of the Ohio Inspection Bureau. The first address was on "The Proper Method of Grounding," by W. M. Runyan, Grounding Expert for the Crouse-Hinds Company. Mr. Runyan outlined the history of the application of the National Electrical Code and the gradual rise to prominence of "Safety Circuits." The talk was well illustrated with blueprints and charts.

The officers of the Electrical Inspectors elected for the coming year are: President, E. S. Wirth, City Electrician, Canton; Vice President, J. C. Freeman, Ohio Inspection Bureau, Steubenville; Secretary-Treasurer, C. M. Wooley, Ohio Inspection Bureau, Columbus.

Left—Small Automatic Foam Type Extinguisher Quenching Oil Fire. Right—Demonstration on Banks of Crystal Park Lake, Ohio Chiefs' Convention

The next address was on the "Construction of Panel Boards and Proper Determination of Fuse Capacities," by Robert Shepard, Electrical Engineer. Mr. Shepard explained the position of the Underwriters Laboratories on panel board standards and discussed at length details pertaining to them.

The last address of the evening was on the "Value of Adequate Electrical Inspection Service to the Public," by M. F. Smalley, Meter Superintendent of the Ohio Power Company. Mr. Smalley commended the work of the National Electrical Lamp Association, and gave figures showing that the fires caused by electricity have decreased enormously during the past several years.

Wednesday morning, June 6, the convention met in four separate sections. The Chiefs of the full paid departments were presided over by Chairman, Chief D. K. Moser, of Warren. One of the principal topics discussed was with regard to the cooperation given to fire departments by the National Board of Fire Underwriters and by the Ohio Inspection Bureau.

The Chiefs of the Volunteer Fire Departments met with Chairman Chief W. F. Wise, Medina, presiding. This was a very enthusiastic meeting, the principal subjects discussed being compensation and pensions for volunteer firemen and the procuring of amendments to the present township laws so that several townships may act jointly to secure fire apparatus.

The Chiefs of the Industrial Plant Brigades met separately and discussed problems peculiar to their work.

The electrical inspectors met in a separate division. Victor H. Tousley, Electrical Field Secretary of the N. F. P. A., met with this group and explained the kind of work he is now doing. He talked on the proper application of the new electrical code, explained the various steps that must be taken to get an article into the code, told of tests, etc., and discussed the various rules of the electrical code.

Wednesday afternoon was devoted to the demonstration of fire apparatus and fire department appliances and demonstrations of the proper manner of handling apparatus. The demonstrations and exhibits were in charge of Chief John J. Curtis, of Sandusky, assisted by John Schellin, of the Akron Brass Company of Wooster. Apparatus and appliances which had been on exhibition at the convention hall were formed into the big parade which started at 1:30 and led from the city to Crystal Lake Park, escorted by the Columbus Firemen's Band. All afternoon demonstration were held and exhibits made. In the evening, a picnic supper to four hundred was served in the dance pavilion. Following this, Chief D. K. Moser, of Warren, acted as toastmaster and introduced to the crowd various celebrated fire chiefs of Ohio. The address of the evening was made by Leslie Peat, of Lakewood. The remainder of the evening was devoted to dancing and the various park amusements.

The final session of the convention was Thursday morning, June 7, the first address being by W. T. Filmer, Fire Prevention Director, Youngstown Sheet & Tube Co., Youngstown, on "Are Fire Hazards Always Recognized."

The next address was on, "Fighting Fires Before They Occur," by J. F. Warren, Manager of The Associated Factory Mutual Fire Insurance Companies, Cleveland.

The final address of the convention was, "Ohio's Fire Prevention Record," by C. S. Magruder, Division of State Fire Marshal, Columbus, Ohio.

A short business session followed the addresses, and the report of the Secretary-Treasurer was given, as were also those of various committees.

The convention was terminated by the election of officers for the coming year. Chief John J. Curtis, of Sandusky, was elected President and Sandusky was chosen as the 1929 convention city. Other officers chosen were: Chief John J. Grogg, Tiffin, as first vice president; Vincent Malloy, Salem, as second vice president, and Philip J. Harty, of the Youngstown Sheet and Tube Company, was retained as secretary-treasurer.

CONVENTION DATES

June 25- 28—OKLAHOMA STATE FIREMEN'S ASSOCIATION. 34th Annual Convention and State Firemen's Training School, Blackwell, Okla. Secretary, Charles Slemp, 820 East 19th St., Oklahoma City.

June 26-29—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 6th Annual Convention, Burlington, Vt. Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass. Chairman, Exhibit Committee, Frank M. Tiffany, Gamewell Company, 1022 Commonwealth Avenue, Boston.

June 28-30—ALLEGHANY COUNTY FIREMEN'S ASSOCIATION. Annual Convention, Tarentum, Pa.

July 3—MAPLE VALLEY FIREMEN'S ASSOCIATION. Tournament, Battle Creek, Ia.

July 5-7—SOUTHEASTERN FIRE CHIEFS' ASSOCIATION. Annual Convention, Atlanta, Ga. Secretary, Chief H. E. Whitener, Hickory, N. C.

July 11-13—MICHIGAN STATE FIREMEN'S ASSOCIATION. 54th Annual Convention, Port Huron, Mich. Secretary, H. L. Williams, Ludington, Mich.

July 11—DELAWARE VOLUNTEER FIREMEN'S ASSOCIATION. 8th Annual Convention, Hall of Carlisle Fire Company, Milford, Del. Secretary, Sam H. Carson, Dover, Del.

July 14—NEW YORK-NEW JERSEY VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, Ridgefield Park, N. J.

July 17-19—INDIANA FIREMEN'S ASSOCIATION. 11th Annual Convention, Terre Haute, Ind. Secretary, Chief Frank H. Miller, Fire Headquarters, Terre Haute.

July 17-19—NORTHERN INDIANA INDUSTRIAL AND VOLUNTEER FIREMEN'S ASSOCIATION. 23rd Annual Convention, Terre Haute, Ind. Secretary-Treasurer, Hugh M. Russell, Bluffton, Ind.

July 18-21—SOMERSET COUNTY FIREMEN'S ASSOCIATION. Annual Convention, Boswell, Pa. Secretary, J. R. Shanks, Rockwood, Pa.

July 24-27—DOMINION ASSOCIATION OF FIRE CHIEFS. 20th Annual Convention, Kingston, Ont. Secretary, Chief James Armstrong, Kingston.

July 25—ROCKLAND COUNTY VOLUNTEER FIREMEN'S ASSOCIATION. 15th Annual Convention and Parade, Haverstraw, N. Y.

July 26-28—MONTANA STATE FIREMEN'S ASSOCIATION. 37th Annual Convention, Livingston, Mont. Secretary, D. E. Moser, Bozeman, Mont.

July 27-28—NEW MEXICO STATE FIRE CHIEFS' ASSOCIATION. Annual Convention, Socarro, N. M. Secretary, Theodore A. Rosenwald, East Las Vegas, N. M.

Aug. 1-2—CENTRAL DISTRICT VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, Clearfield, Pa. Secretary, John E. Johnson, DuBois, Pa.

Aug. 6-8—UTAH STATE FIREMEN'S ASSOCIATION. 21st Annual Convention, Bingham Canyon, Utah. Secretary, Harris E. Anderson, Fire Headquarters, Salt Lake City, Utah.

Aug. 14—CUMBERLAND VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. 27th Annual Convention, Hanover, Pa. Secretary, C. L. Jacobs, Waynesboro, Pa.

Aug. 14-16—CONNECTICUT STATE FIREMEN'S ASSOCIATION. 44th Annual Convention, Dorscht Hall, 270 Crown St., New Haven, Conn. Secretary, D. W. Harford, South Norwalk, Conn.

Aug. 14-16—WISCONSIN PAID FIREMEN'S ASSOCIATION. 21st Annual Convention, Racine, Wis. Secretary, Hugh Corcoran, Superior, Wis.

Aug. 22-24—VIRGINIA STATE FIREMEN'S ASSOCIATION. 42nd Annual Convention, Ocean View, Va. Secretary, Chief J. B. Gordon, Newport News, Va.

Aug. 28—MICHIGAN STATE FIRE CHIEFS' ASSOCIATION. Annual Convention, Fordson, Mich. Secretary, George F. Dansbury, Grosse Pointe Farms, Mich.

Aug. 29-31—CALIFORNIA STATE FIREMEN'S ASSOCIATION. 6th Annual Convention, Reading, Cal. Secretary-Treasurer, H. E. Strasser, 1171 Tenth Street, San Diego, Cal.

Aug. 29-31—INDIANA FIRE CHIEFS' ASSOCIATION. Annual Concention, Fort Wayne, Ind. Secretary, Chief Ezra D. Owens, Fire Department, Bedford, Ind.

Sept 5-6—COLORADO STATE FIREMEN'S ASSOCIATION. 12th Annual Convention and Tournament, Rocky Ford, Col. Secretary, Clinton Turnbull, 303 Jacobson Bldg., Denver, Col.

Sept. 11-13—ILLINOIS FIREMEN'S ASSOCIATION. 41st Annual Convention, LaSalle, Ill. Secretary, Roy W. Alsip, Asst. Chief, Fire Department, Champaign, Ill.

Sept. 18-19—IOWA FIREMEN'S ASSOCIATION. 51st Annual Convention, Independence, Ia. Secretary, E. E. Parsons, Marion, Ia.

Sept. 21-22—NEW JERSEY STATE FIREMEN'S ASSOCIATION. 51st Annual Convention, Atlantic City, N. J. Secretary, William Exall, Chamber of Commerce Bldg., Newark, N. J.

Sept. 21-22—NEW JERSEY STATE FIRE CHIEFS' ASSOCIATION. Annual Meeting, Atlantic City, N. J. Secretary, Fred A. Trowbridge, 17 South Street, Morristown, N. J.

Oct. 1-5—PENNSYLVANIA STATE FIREMEN'S ASSOCIATION. 49th Annual Convention, Uniontown, Pa. Secretary, Charles F. Clark, 411 Bellevue Avenue, Wayne, Pa.

Oct. 1-6—PACIFIC COAST ASSOCIATION OF FIRE CHIEFS. 35th Annual Convention and School of Instruction for Firemen, Sacramento, Cal. Secretary, State Fire Marshal Jay C. Stevens, Merchants' Exchange Bldg., San Francisco, Cal.

Oct. 9-10—MISSOURI VALLEY ASSOCIATION OF FIRE CHIEFS. Annual Convention (tentative date). Secretary, Chief Ray Tiller, Waterloo, Ia.

Oct. 9-11—RAILWAY FIRE PROTECTION ASSOCIATION. Annual meeting, place to be selected later by Executive Committee. Secretary-Treasurer, R. R. Hackett, Baltimore & Ohio R. R., Baltimore, Md.

Oct. 11-12—GREAT LAKES ASSOCIATION OF FIRE CHIEFS. Annual Convention (tentative date). Secretary, Chief Frank C. McAuliffe, Chief of Patrols, 100 Desplaines St., Chicago, Ill.

Oct. 15-17—EASTERN ASSOCIATION OF FIRE CHIEFS (Eastern Division, I. A. F. C.) First Annual Convention, Bellevue-Stratford Hotel, Philadelphia, Pa. (Just preceding I. A. F. C. Convention.) Secretary, T. Howell Johnson, Newark, N. J.

Oct. 17-20—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 55th Annual Convention, Bellevue-Stratford Hotel, Philadelphia, Pa. Exhibits at Second Regiment Armory. Secretary, Chief James J. Mulcahey, Yonkers, N. Y.; Executive Secretary, Jay W. Stevens, Merchants' Exchange Bldg., San Francisco, Cal.; Chairman, Exhibits, Chief August Gerstung, Elizabeth, N. J.

Oct. 22-24—KANSAS STATE FIRE CHIEFS and FIREMEN'S ASSOCIATIONS and WOMEN'S AUXILIARY. 13th and 42nd Annual Conventions and 3d Meeting, respectively, Liberal, Kan. Secretary, Chief K. D. Doyle, Wamego, Kan.

Paxton Mendelssohn Leaves for Honolulu

Box 12 Associates of Detroit, Mich., gave a bon voyage dinner to their Chief, Paxton Mendelssohn, at the Detroit-Leland Hotel on June 12, prior to his leaving for New York to sail for Honolulu for the summer. Fire Commissioner Hayward Murphy, Chief Stephen J. De May and others in and about the Detroit Fire Department attended.

Chief Mendelssohn witnessed the presentation of medals to New York firemen on June 18 and sailed on the President Harrison of the Dollar Line on June 21, to be gone until the end of August, with Mrs. Mendelssohn and their sons, Paxton, Jr., and Louis. While in Honolulu, they will be at the Royal Hawaiian Hotel.

WM. J. DALY.

New York Volunteers Have Convention

The Southern New York Volunteer Firemen's Association held a three-day convention at Rockaway Beach, L. I., N. Y. George Salon of Hollis, N. Y., heads the association. Addresses were given by Alfred Kennedy, New York State Senator, and Rev. Joseph R. Alten, of Sea Cliff, L. I., prominent in volunteer firemen's organizations.

Hoffman, Noted Nassau County Fireman, Dead—George H. Hoffman, for several years chairman of the contest committee of the Nassau County, L. I., N. Y., Firemen's Association, died at the age of sixty-two following an operation.

Sioux City Salary Question Sidetracked—The Sioux City, Ia., city council has shelved an ordinance providing for a salary increase for the firemen. The previous city council dropped the matter on two different occasions. It is believed that no further action will be taken until some means of financing the proposed raise has been presented.

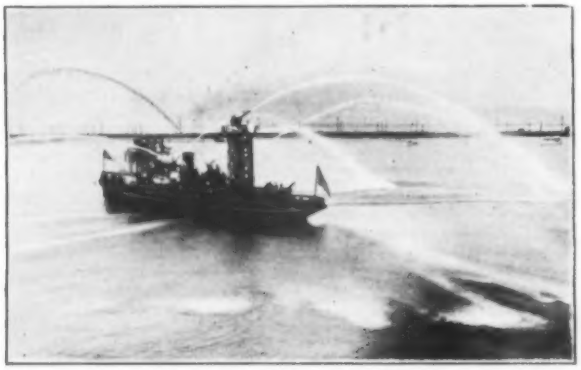
MANY NEW FEATURES IN DESIGN OF FIREBOAT IN USE IN SEATTLE

Description of "Alki" Built by Pacific Coast Engineering Co.—Boat Equipped With Wireless Telephone for Orders from Land

By WILLIAM E. PATTERSON

A FIREBOAT, constructed entirely of steel, has been placed in service in Seattle, Wash. It is called the Alki and is classified by the department as Engine No. 5. The boat was built from designs made by C. W. Nickum, naval architect of Seattle, and the principal dimensions are as follows:

Length over all	123′ 6″
Length between perpendiculars	18′ 0″
Beam, moulded	26′ 0″
Beam, over guards	27′ 0″
Draft	7′ 6″
Speed, knots	14
Gasoline bunker capacity, gallons	5,500



The Fireboat "Alki" in Action at Seattle, Wash.

Practically the entire space inside the hull of this boat is taken up by the power plant and fuel tanks.

The power plant consists of seven six-cylinder, three hundred horse power Model 120 Winton gasoline engines with a speed of 1,200 revolutions per minute.

One engine is located on the centerline aft and connected through a three to one reduction gear incorporated in the engine bedplate, to the central propeller shaft.

Two engines located starboard and port aft also have the three to one reduction gear incorporated in the after end of the bedplates and are connected through this gear to the outward propellers. At the forward end, these two engines are each connected through a clutch to a Byron-Jackson four stage centrifugal fire pump. The other four Winton engines are direct connected to Byron-Jackson four stage centrifugal fire pumps. Each of these pumps have a capacity of 2,000 gallons of water per minute at 200 pounds pressure. The total capacity of pumping equipment is 12,000 gallons per minute at 200 pounds pressure.

The above arrangement of engines, and pumps makes a very flexible power plant giving ample propelling power to get the vessel to any fire and, with full pump capacity operating allowing maneuvering power on the central propeller screw.

A forced draft ventilation system is employed for keeping a plentiful supply of clean, fresh air available for engines and engine room crew.

An unusual monitor deck turret nozzle equipment is installed on this boat, consisting of nine of the latest improved Morse invincible type of fireboat nozzles.

On the dome, amidships, are mounted six deck turret nozzles, each with a capacity of 2,000 gallons of water per minute. On the top of the water tower there is one with a capacity of 3,000 gallons per minute and one of the same capacity on the after deck of the vessel. On the top of the pilot house is mounted an extra large turret nozzle having a capacity of 6,500 gallons per minute, the largest of its kind or type in the world. A gate valve at the base of each turret nozzle controls the supply of water to each.

The six turret nozzles located on the dome of the boat are equipped with a 2, 2¼ and a 2½ inch tip, the water tower nozzle and the nozzle on the after deck each with a 2½, 2¾, 3 and a 3½ inch tip while the pilot house nozzle is equipped with a 3½, 4 and 5-inch tip.

In discharging a number of heavy streams broadside at a fire, the back thrust on the turret nozzle produces a lateral drift of the hull, which may become a very objectionable feature in the smaller light draft type of fireboat. To offset this, nozzles are fitted along the sides of the hull below the water line to produce an opposite thrust. On some of the fireboats now in operation the use of these nozzles has greatly reduced the effectiveness of the fire fighting streams through loss of water and pressure. On the new Seattle fireboat, these nozzles will be regulated by an especially designed hydraulic valve which is calculated to improve the method of preventing side drift.

In addition to the nine deck turret nozzles on the boat there are sixteen 3½ inch hose connections or outlets all of which are equipped with 2½ inch reducers, eight of these connections being located forward at the base of the water tower.

Auxiliary equipment includes two 1,000 gallon per minute Byron-Jackson wrecking pumps driven by Fordson gasoline engines.

These pumps will be used in salvaging operations. Deck machinery and service pumps are electrically operated, as is also a 4 x 3½ Ingersoll-Rand Compressor. The electric windlass and the electric boat which were both built by Allan Cunningham of Seattle, who built the hydro-pneumatic steering gear and the hydraulically operated water tower. This tower is of the telescope type fitted with a hydraulic ram which is capable of lifting the monitor water tower nozzle to a level of forty feet above the water line.

Electric current for the lights and for auxiliary power is supplied by two 15-kilowatt, 110-volt generators driven by Fordson gasoline engines. A shore connection is provided for taking shore power when the boat is tied up at dock.

An Allen Cunningham whistle and a Hendrie and Bolthoff Denver siren provide adequate navigation and warning signals.

A total of five thousand feet of hose is carried on the boat; one thousand feet of 1½ inch, two thousand feet of 2½ inch and two thousand feet of 3½ inch. A boat tender or hose wagon carrying large size hose answers alarms of fire with the boat, which is used for fires near the water front.

Among the Alki's equipment are four Foamite foam generators, each capable of making five hundred gallons of fire foam per minute.

The boat is protected by twenty Lux carbon dioxide cylinders installed with piping arranged so as to make possible the instantaneous smothering of any fire breaking out in any enclosed space on the boat. The manifold on these cylinders also has a

Construction of the Hydraulically Operated Water Tower on Seattle's New Fireboat

connection for hose, and the boat carries three hundred feet of flexible metallic hose for fighting fire outside the vessel. Water screen protection is fitted round the pilot house and the rail.

Gasoline is carried in two tanks forward and two aft. These tanks are electrically welded, vapor-tight, and each pair is in a water-tight and vapor-proof compartment with at least eighteen inches clearance all around between the tanks and the enclosure. From these tanks brass rotary pumps electrically operated force the gasoline up to the service tanks in the dome amidships. There are two of these service tanks of two hundred gallons capacity each. Feed to all the engines is by gravity.

A unique feature of this new fireboat is the wireless telephone installation in the pilot house. It has a phone number in the city directory and makes possible the direction of the boat's movements and the fire fighting activities from the shore. The wireless phone was installed by the Samson Radio Corporation of Seattle.

The boat is equipped with two searchlights as well as a number of flood lights which are mounted on the pilot house and on the outside of the hand rail on the top of the water tower.

Twenty men were assigned to duty on the boat in two shifts of ten men each, the crew on each shift consisting of one pilot, one chief marine engineer, one marine engineer, two oilers and five deckhands.

The boat when working at full capacity delivers approximately the same volume of water as would sixteen land companies. At a test the boat threw a five-inch stream a distance of over four hundred feet.

The boat cost complete, $220,000.

LONE ENGINE COMPANY PROTECTS 9,000 LIVES ON WELFARE ISLAND

Land Adjacent to Manhattan Island Has 118 Buildings, Including Hospitals, Asylums and Prison—Aid Can Be Rushed from City

By WILLIAM JEROME DALY

VISITORS to New York City always remember a long narrow island lying parallel to Manhattan Island, in the East River. Few realize that it contains what may be called the most unique fire unit of any department in this country, and few can compare with it in the number of lives that it must protect, and the attendant responsibilities.

Capt. Joseph A. Christie

Welfare Island is a comparatively new name for the far-famed Blackwell's Island which was given to the city by the old Blackwell family. Since there are a number of hospitals, homes and asylums on the island, the Commission of Public Welfare, seven years ago, prevailed upon the city to change the island's name to avoid the pall of penal servitude falling on those, other than prisoners, stationed on the property. The island is about one and one-half miles long and 644 feet wide. It extends from a point opposite Fifty-first street and ends at a point near Eighty-sixth street.

There are 118 buildings on the island housing approximately nine thousand persons, including officials, physicians, nurses, patients, prisoners, keepers, employees and their families. The buildings are as follows: Fifty of one story; twenty-nine of two stories; seventeen of three stories; ten of four stories; three of five stories and one of nine stories. The latter is 100 by 120 feet, built up to the level of the Queensboro Bridge which spans both channels of the East River from Fifty-ninth street, Manhattan, to Queens Boulevard, Long Island City. This building was constructed to provide transportation between the bridge and the island in order to eliminate the very unsatisfactory boat service. It has three service elevators of six, thirteen and seventeen tons capacity, available for fire apparatus (excepting hook and ladder trucks) which respond on first alarm to augment Engine Co. 49 on the island. This building contains many hazards, such as drug supply, chemicals, lumber for manufacturing coffins, records, stationery, dry goods for wearing apparel for patients and prisoners, coffee roasting, general storage and warehouse for the island institutions.

Twenty-seven of the buildings are used for hospitalization, two for laboratories, one for radium treatment, four for nurses' quarters, three for doctors' quarters, eight for dormitories, two for prisons (penitentiary and warehouse), two for homes for the destitute, four for laundries, eight for garages, two for oil storage, three refrigerating plants, nine for churches, chapels and other religious work, also besides the carpenter shops, paint shops, bakeries, store houses, bath houses, post office, recreation centre, nine cottages for residences of the warden, medical superintendent and other officials.

The island contains many old structures, luckily there have been no fatal fires in them mainly due to the vigilance and educational fire prevention propaganda by the officers and members of Engine Co. 49. The Department of Welfare maintains a fire drill expert who supervises all the institutions of that department.

City Hospital is a five story stone building, 200 x 450 feet, erected in 1859; Metropolitan Hospital, four stories, of stone, 300 x 400 feet, erected in 1848; City Home for Women, four stories, stone, 100 x 250 feet, erected in 1846; City Home for Men, four stories, stone, 110 x 300 feet, erected in 1846; Penitentiary, five stories, stone, 1,275 x 175 feet, erected in 1876, with additions in 1897; Workhouse, four stories, stone, 200 x 600 feet, erected in 1852; Nurses' Home, five stories, stone, 100 x 200 feet, erected in 1908; service building between the bridge and the island, nine stories, brick and concrete, 100 x 200 feet, erected in 1918.

All buildings are equipped with standpipes, extinguishers, hose, hooks, axes, buckets and interior fire alarm system. The more serious hazard on the island is the Metropolitan Hospital, with its combustible interior, wide open cupola, and open stairways. Most of the older buildings have wooden floors, old wood trim and stairways, cock lofts and storage capacity not separated.

The elevator building at the bridge connection with its inflammable contents on various floors is an ever threatening source of fire which could, if large enough and hot enough, prevent fire apparatus and firemen from reaching the island.

All buildings are well equipped with an interior alarm system, on each floor, cellar and other important location. Each box is numbered and the location designated both in the records of the city fire department and in the institution itself.

To snap a box in any of the buildings, is to give notice, not only to the fire department at the central office in Manhattan, but it also causes the engineer or stoker on duty in the boiler houses to blow four blasts on all steam whistles as sort of local alarm to call out the employees, nurses, keepers and doctors for their particular detail of fire duty. The quarters of Engine Co. 49 are opposite East Seventy-second street, facing toward Manhattan. The employees of the Department of Welfare and the Department of Correction have a prescribed drill which they follow until the arrival of the fire company.

There is one master alarm box of the city fire department on the island. It has from one to eighteen terminal numbers attached to it. The alarm might read: 3——920——18; the "3" indicating special building alarm, the "920" being the box and the "18" the designating terminal number indicating the specific location on the island of the origin of that alarm. Assignments have been made for a fifth alarm, embracing 19 engines, four trucks and one more fireboat.

A first alarm assignment for the island brings, in addition to the local fire company, Engine Companies Nos. 8, 39 and 44, H & L Companies 2 and 16, the Chiefs of the 8th and 10th Battalions—all from the mainland via Queensboro Bridge, and two fireboats. The fire apparatus from the mainland reaches the level of the island in about five minutes—the hook and ladder crews carrying axes, hooks, claw tools, etc., and leaving their apparatus at the bridge level. It is arranged on signal that in case of fire, the elevator operators take their cars to the bridge level and await the arrival of the firemen. In the meanwhile, Engine Co. 49 is in charge.

The water supply to the island is from the mainland via two 12-inch mains, one under the bed of the river and the other from the Queensboro Bridge level. The pressure on the hydrants averages thirty pounds.

Engine Co. 49 is in charge of Capt. Joseph A. Christie on one platoon and Lieut. James Coyle on the other. There are two officers, two engineers and eighteen firemen. Capt. Christie has had twenty-eight years 'service. The average service of the members of the company is twenty-three years, all active men however with valued experiences in busy fire companies prior to their assignment to the island.

The company had three fires last year. Its work is more along the line of prevention and inspection than actual extinguishment. The fact that there have not been more than three fires a year on the island is due mainly to the vigilant inspection, educational and prevention activities of the firemen and the fire

drill expert, Erward C. Smith, a retired member of the New York Department.

The company is equipped with a second size tractorized steam pumping engine; a South Bend hose wagon carrying 1,000 feet of 2½-inch hose; a Mack city-service truck with a chemical tank and a reel of 300 feet of 1-inch hose. The engine house was built in 1882. It is maintained equally by the Department of Welfare and the Department of Correction. Two trusty prisoners are assigned to cook and wait on the table. The firemen themselves take care of all other fire house activities. The motors of the apparatus are turned over three times a day—same as on the mainland. Weather permitting, the apparatus is given a short run every week. Often an inmate of the City Home or an old convalescent patient will stroll to the engine house to talk to the "boys", and recall old times in the volunteer department of yester-year.

Ten years ago a trusty prisoner purloined a fireman's uniform coat and cap and was wearing it on his way to freedom when a guard familiar with the faces of the firemen encountered him and spoiled the get-away.

Stretching Hose to High Levels

(*Continued from page* 552)

2½" two-way gate. Order the officer in charge of these six men to have the men pull at least 12 lengths of 2½" hose in on the 34th floor and then make line fast to stair rail with hose strap.

When the hose is pulled up, disconnect 12 lengths and put on a 2½" x 2½" two-way gate. Connect six lengths of hose to each outlet; put a control nozzle on each line; then stretch both lines to fire and extinguish it with ½" streams. Two well directed ½" streams directed from different angles may extinguish the fire, considering that the building is fireproof and that the areas at this height are generally small. However, if it is necessary to use a larger size stream only one line would be stretched and the other six lengths would be held in reserve in case one of the lengths hurst for replacements. It will be much easier to go down the stairway with a length of hose than it would be to carry it up.

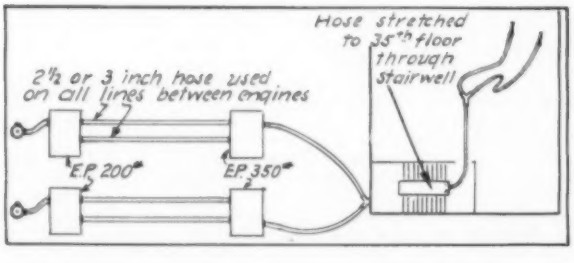
Meanwhile a man with hose strap and spanner would be sent to each floor below the 34th. This would require at least thirty-nine men, including the six men on 34th floor, for stairway positions. Officers in command of these companies would be distributed throughout stairway to see that the men are working properly and when line is in position that the hose straps are properly fastened to line and stair rails and that spanners are used to see that the couplings are sufficiently tight.

The first alarm assignments would be immediately sent to cover stairway positions and if any of the lower floors were not covered due to shortage of men on first alarm; this fact would be known to the officer commanding and directing the operations and these lower floors could be quickly covered by second alarm assignments.

NOTE: Before all men were in position the second alarm companies would arrive, and, all men not needed on stairway positions would be assigned as follows:

One-half of the men would be ordered to lay 22 lengths of hose to base of stairway where line is going to be stretched through. The male butt to be on top. One man would be ordered to get a fire escape hook. A 2½" x 2½" siamese connection would be attached to the female end of line.

Four engines would be used if in low pressure district for each line, and, two engines if in high pressure district. Assuming the fire is located in the low pressure district, the engines would be hooked up in tandem as follows:



The reason for using a siamese connection and have two engines hooked to each siamese inlet is to assure adequate pressure at the highest outlet, and, should one engine break down, or the hose burst in line which leads to siamese inlet, the other engines hooked up in tandem and leading to the other inlet will assure a supply of water at the nozzle. The engine at the hydrant would be ordered to maintain a pressure of 200 pounds; the water from this engine would be relayed to a second engine placed at the base of fire building and as near to the point where hose line was being stretched from. The engine nearest the base of fire building would be ordered to maintain a pressure of 350 pounds on the gauge.

As soon as all men were in position and the hose was laid to the base of stairway, the command would be, "Send up the line." The fire escape hook would be attached to the male butt end of line and all men on landings would pull the line up as taught in the school of instructions in performing the fire escape evolution. When sufficient hose was taken in on the 34th floor the command would be, "Hold it and make line fast to stair rail with hose straps."

The order to start water would be relayed from the 34th floor to officer in command at base of building and then to engineers or men operating pumps.

NOTE: The amount of hose to be used depends upon the area of building; the height of building and the location of the stairway.

Second Line

If a second line was needed the six men who are on the 29th to 34th floors would proceed up to the 34th floor. Each other man would proceed up six floors to cover the landings and it would only be necessary to send six additional men to cover second to seventh floors. Men not on the stairway could lay hose to base of stairway as stated in first case and engines could be hooked up in a similar manner. If more than two lines were needed it would be necessary to send out such additional alarms as the fire would warrant.

Where the second line is stretched, the ladder straps would be taken off the first line at the odd numbered floors and placed on the second line on that floor.

As soon as the first line is stretched a second line should be sent up in a similar manner as a means of precaution should the first line burst.

The above procedure could be followed in stretching a line by way of a fire tower where the balconies are directly over each other, or up a fire escape. Where the line is stretched up a fire escape it would be necessary to fasten the line to the railing nearest the wall of the building to avoid the possibility of fire escape collapsing.

Whether the line is sent up a stairwell, or a fire tower, or a fire escape, a few fire escape hooks and extra lengths of hose should be brought to the base from which the line is stretched up, so that, in case a length of hose burst on one of the upper floors, an extra length could be sent up through the well-hole, etc., on fire escape hook, to replace the burst length.

One of the advantages of this evolution is that all men must remain in their assigned positions until otherwise ordered. This means efficiency and perfect coordination.

Reason For using 2½ Inch Hose

Every engine company in the Department carries 2½" hose. The men handle this hose more than the 3", because it can be handled with greater ease. Where small streams can be used to greatest advantage because of the time saved in getting a line in operation the 2½" hose should be used. Then again there are companies responding to fires in the low pressure district which are not equipped with 3" hose, and, only one company responding on the second alarm so equipped. The company equipped with 3" hose may not reach the fire because of an accident. This means more delay in special calling a company equipped with 3" hose or sending an additional alarm.

Officers claim that the 2½" hose will not stand the pressure and is more liable to burst than the 3" hose. I think that all officers should keep in mind that the unexpected is liable to happen at any time at a fire and that he should be prepared for the emergency. In this evolution he should have sufficient lengths of 2½" hose and fire escape hooks at the point from which hose is stretched from so they could be used immediately in case it is necessary.

I might add that the different methods could be practiced in new buildings before they are occupied. Arrangements to be made by the Chief of Department.

Two New Companies Asked for Washington, D. C.—Requests have been made for the establishment of a new engine company and a new truck company in Washington, D. C.

Capt. Babcock, Nyack, Opens Agency—Captain William Paul Babcock, of the Fire Patrol, Nyack, N. Y., Fire Department, has become manager of the Hudson Valley Fire Protection Agency, which has just opened offices in that village, to deal in fire apparatus and supplies.

FIRE DEPARTMENT ACTIVITIES

Ardsley, N. Y., Orders New Fire Apparatus—Ardsley, N. Y., has purchased a new Seagrave pumper.

Chester, Pa., Receives New Aerial Ladder—A 75-foot aerial ladder has been delivered to Chester, Pa.

Fall River, Mass., to Buy Pumper—Fall River, Mass., voted to purchase a 1,000-gallon Mack pumper.

Mahwah, N. Y., Installs Siren—A large siren has been installed in Mahwah, N. Y.

Randolph, Mass., Receives Apparatus—A resident of Randolph, Mass., presented the town with fire apparatus.

Union, N. J., to Erect Fire Station—Union, N. J., has just purchased land on which a fire station will be erected.

Ridgley, W. Va., to Purchase Apparatus—Ridgley, W. Va., plans to purchase fire apparatus for $5,000.

York, Pa., to Honor Dead Firemen—A memorial column will be dedicated on Labor day in York, Pa., to the memory of those York firemen who lost their lives while on duty.

Poughkeepsie, N. Y., Delays Fire Station Work—The council at Poughkeepsie, N. Y., has delayed action on the purchase of a lot on which the city wants to erect a fire station.

Egg Harbor City, N. J., Buys Apparatus—The Pomona volunteer fire company at Egg Harbor City, N. J., has ordered a Hahn pumper. Delivery will be made in July.

Geneseo, Ill., Wants Fire Protection—The Geneseo, Ill., Community Farm Bureau is considering the problem of rural fire protection.

Stanford, Cal., to Have Fire Alarm System—A modern fire alarm system will be installed next fall in Stanford, Cal., to replace the present system of telephone calls.

Chief Brophy of Tarrytown, N. Y., Dined—A testimonial dinner of the Tarrytown, N. Y., Fire Department has been arranged to honor Chief Arthur Brophy.

Work Started on Sioux City Fire Alarm—Work has started on the installation of a new fire alarm system in Sioux City, Ia.

Neenah, Wis., Increases Firemen's Pay—The pay of firemen in Neenah, Wis., has been raised, on the average, five dollars a month.

Woonsocket, R. I., to Have New Station—Plans are being drawn for a $60,000 fire station to be erected in Woonsocket, R. I.

W. Orange, N. J., Seeking Site for Station—West Orange, N. J., is still looking for a possible site for its proposed $65,000 fire house in the Fourth Ward.

Mt. Pleasant, Pa., to Have Celebration—The volunteer fire department of Mt. Pleasant, Pa., is making plans for the centennial celebration to be held July 2-7.

Haverhill, Mass., Station in Service—The new station in Haverhill, Mass., has been placed in service. On the first day, the new building was open for public inspection.

Fire House Erected in Clermont, N. Y.—A new fire station is being erected in Clermont, N. Y., to provide quarters for the Sandford pumper delivered recently.

Lack Haven, Pa., to Have New Building—The Citizens Hose Company of Lock Haven, Pa., will erect a new building soon. The station will be of brick construction.

Pumper Delivered to New Haven, Conn.—A 1,000-gallon Mack pumper has been delivered to New Haven, Conn. The new apparatus was installed in No. 12 house.

St. Albans, N. Y., May Have Fire Station—John J. Dorman, fire commissioner of New York City favors the purchase of land in St. Albans, part of Greater New York, for the erection of a fire house.

Ex-Chief of Duluth, Minn., Dead—Michael F. Chalk, chief of the Duluth, Minn., fire department from 1882 to 1887, died at a local hospital at the age of seventy-seven following a short illness.

Potsdam, N. Y., Has New Pumper—A 500-gallon pumper has been delivered to Potsdam, N. Y. The apparatus is the property of the Firemen and the firemen plan to use it even to answer alarms outside of the village limits.

Shelby, N. C., Has New Ladder Truck—A new ladder truck has been delivered to Shelby, N. C. The apparatus was purchased shortly after the Central Hotel fire in which four persons lost their lives.

Iowa Fire Fighters Elect Officers—The Iowa Association of Fire Fighters held their convention in Dubuque, Ia. Officers for the new term were elected. Next year the association will meet in Waterloo.

Allegany County Firemen to Meet in July—The fourteenth annual convention and parade of the Allegany County Volunteer Firemen's Association will be held in Bolivar, N. Y., on July 11 and 12. The parade will be held on the last day.

Randolph, Wis., Receives New Apparatus—A Boyer chemical car has been delivered to Randolph, Wis. Most of the money for this purchase came from farmers in the community. The village will house the apparatus.

Fowler New Chief at Slingerlands, N. Y.—George M. Fowler has been appointed chief of the village fire department at Slingerlands, N. Y. Quarters may be rented to house the fire apparatus that will be purchased soon.

Hanover, Pa., Observes Anniversary—Fire companies from southern Pennsylvania and Maryland marched in Hanover, Pa., to celebrate the twenty-fifth anniversary of Eagle Company No. 2.

More Firemen Urged for Youngstown, O.—In a report issued on Youngstown, Ohio, by the National Board of Fire Underwriters, a recommendation was made that more firemen be added to the department.

Bloomfield, N. J., Celebrates Anniversary—The volunteer fire department of Bloomfield, N. J., celebrated its forty-fifth anniversary. There were firemen's contests in the afternoon and a block dance in the evening closed the celebration.

Linwood, Mich., Apparatus Destroyed—Linwood, Mich., had the misfortune of having the first machine that it has purchased, destroyed by fire. Apparatus from Kitchener, Milverton, Elmira and Conestogo arrived in time to save the village from a serious fire.

Hightstown, N. J., Dedicates New Building—A new fire house has been opened in Hightstown, N. J. Chief Ross B. Davies of Philadelphia was one of the speakers. A band concert was held in the new building in the afternoon and a dance in the evening.

Port Jefferson, N. Y., Opens Fire House—Port Jefferson, L. I., N. Y., has opened its new $69,000 fire station. Members and officers of the Southern New York Volunteer Firemen's Association and the Suffolk County Volunteer Firemen's Association were invited to attend. Building construction was financed by funds obtained at carnivals and so forth.

Providence, R. I., to Have New Station—Bids were opened for the construction of a new station for Hose No. 10. The building will be constructed of gray face brick with limestone trimmings. The second floor will be used for quarters for the two platoons. The station will cost $25,000 and is of Tudor design.

County Firemen Meet in New Holland, Pa.—The eighth annual convention of the Lancaster County Firemen's Association was held at New Holland, Pa. It also marked the two hundredth anniversary of the founding of New Holland. There was a parade and other entertainment. The association will meet next year on June 8th in Lititz, Pa. J. Harry Grube was elected secretary.

Landis Heads Lancaster County Firemen—John G. Landis of Bareville was re-elected president of the Lancaster County Firemen's Association at the annual convention held in New Holland, Pa., Harry E. Trout of Manheim was elected vice-president, A. E. Weaver of Ephrata, second vice-president, J. H. Grube of Landisville, secretary, and B. J. Herr of Lampeter, treasurer.

More Firemen Wanted in Indianapolis—Chief Harry E. Voshell, in his annual report, requested about ninety-six additional men for the department when he submitted his 1929 budget. Thirty of the men desired are to be placed at the two new engine houses to be erected soon. Increases of $500 have been requested for the two assistant chiefs. The chief's budget will probably run $215,000 higher than the amount he received last year. Of this amount, $32,000 is to be used for the purchase of fire apparatus.

PROPOSED IMPROVEMENTS

Gary, Lake Co., Ind.—Safety Board and Council completing tentative plans for installation of a fire and police alarm system. Frank Parkey, Chief of Fire Dept.

Akron, Fulton Co., Ind.—New fire station is to be erected here, according to reports.

Kohlsville (Mail West Bend), Washington Co., Wis.—Kohlsville Volunteer Fire Department making plans for the purchase of a new piece of apparatus.

East Hampton, Middlesex Co., Conn.—At recent town meeting resolution was passed authorizing the purchase of a pumper for fire department at cost not to exceed $8,000.

Harrington, Kent Co., Del.—Bids will be called for shortly for the erection of the proposed 2-story fire station.

Washington, D. C.—An appropriation of $2,343,730 was requested by the fire department, to be used for purchase of 10,000 feet of new fire hose, equipment of the Benning Engine house with a $22,000 pumper and purchase of five new hose cars, according to reports.

Bastrop, Morehouse Co., La.—Installation of new fire alarm system will be started here soon.

Sacramento, Sacramento Co., Calif.—National Board of Underwriters recommended the elimination of the present automatic system of operating fire alarm boxes and the substitution of a control station manually operated also the establishment of a ladder; company equipped with a city service truck with Engine Co. No. 8.

Montgomery, Montgomery Co., Ala.—Plans are being made for the erection of a new fire station here.

Los Altos, Santa Clara Co., Calif.—Alta Mesa Fire District to purchase needed fire equipment.

Charlotte, Mecklenburg Co., N. Car.—City Commissioners authorized a $125,000 bond issue for proposed fire stations in Myers Park and Seversville Sections.

Kingston, Ulster Co., N. Y.—National Board of Fire Underwriters recommended that another engine company be established in headquarters, equipped with a pumper of at least 750 gals. capacity, and carrying a chemical or water tank.

Syracuse, Onondaga Co., N. Y.—John A. Gee, Supt. of Buildings, informed Board of Education, that public schools must install fire boxes before July 1, 1929, involving an expenditure of $20,000. There are 50 public schools in the city.

South Bend, St. Joseph Co., Ind.—Board of Works authorized architects to start on plans for proposed new fire station in the east section of the city. Roy Knoblock, Chief of Fire Dept.

Algona, King Co., Wash.—At recent fire the need for a pumper for the fire department was seen, according to reports.

Geyserville, Sonoma Co., Calif.—Chamber of Commerce voted to appropriate money for the purchase of aditional equipment for the fire department.

Oakley, Contra Costa Co., Calif.—Board of Supervisors were presented with petition for formation of a fire district here, so that funds can be raised for purchase of fire apparatus.

Paducah, Cottle Co., Tex.—An election is to be held soon to vote on fire station and city hall bonds to the amount of $30,000.

Cresskill, Bergen Co., N. J.—At recent meeting of Volunteer Firemen plans for the purchase of a new piece of apparatus was discussed.

Lexington, Fayette Co., Ky.—City Council considering plans for erection of new central fire station, according to reports.

Livingston, Columbia Co., N. Y.—Plans are being made for the purchasing of new apparatus for the fire department.

Clermont, Columbia Co., N. Y.—Work will soon be started on the erection of a new fire station here.

Norwich, Chenango Co., N. Y.—Village purchased a Sanford pumper for the local fire department.

Derby, New Haven Co., Conn.—At recent election city voted in favor of a $9,000 bond issue for the purchase of a pumper. James S. Donahue, City Clerk.

Elmwood Park (P. O. Elmwood) Peoria Co., Ill.—An ordinance has been introduced in the Board of Trustees, providing for the issuance of fire equipment bonds to the amount of $9,000.

Indianapolis, Marion Co., Ind.—Harry E. Voshell, Chief of Fire Department recommended the following improvement in the budget for 1929: 96 additional firemen, new equipment, including one pumper, two trucks and other miscellaneous machines for replacements, etc.

Dundee, Monroe Co., Mich.—Reports state city council making plans for the purchase of a new piece of apparatus for the local fire department.

Exeter, Rockingham Co., N. Hamp.—At recent meeting of Board of Selectmen, it was decided to purchase two 600 gal. pumpers for the fire department.

Wanted

Captain or Assistant Chief in Texas City, must be disciplinarian and drill tower master, use no intoxicants, salary $175 per month, promotion to Chief if qualified. State age, experience. Communications confidential. Address. Frank Baylis, % FIRE ENGINEERING, 225 W. 34th Street, New York City.

5-30, 6-13, 6-27.

Reports, Etc., Received

Railway Fire Protection Association—News Letter No. 30 of the Railway Fire Protection Association describing various types of fires and fire hazards; sixty-three pages.

Department of Labor, Pennsylvania—Labor and Industry, published by the Department of Labor and Industry of the Commonwealth of Pennsylvania.

Firemen's Compensation in Ohio

The following is a digest of the opinion recently rendered by Edward C. Turner, Attorney General of the State of Ohio, concerning the application of the Ohio Workmen's Compensation Act to compensation for firemen in case of injury or death:

"1. Regular members of lawfully constituted police and fire departments of *villages*, under any appointment or contract of hire, are employes within the Workmen's Compensation Act, regardless of whether or not the village maintains a policemen's or firemen's pension fund; and such members, who are injured in the course of their employment, are entitled to participate in the state insurance fund, as are the dependents of such members, where death results from injuries received in the course of the member's employment.

"2. The Workmen's Compensation Act was intended to provide a speedy and inexpensive remedy as a substitute for previous unsatisfactory methods and such act should be liberally construed in favor of employes.

"3. Where an enacting clause is general in its language and objects and a proviso is afterwards introduced, such proviso is to be strictly construed and no case is to be taken out of the enacting clause, which does not fall fully within the terms of the proviso.

"4. Regular members of lawfully constituted police and fire departments of *cities*, under any appointment or contract of hire, may receive compensation from the state insurance fund for injuries received in the course of their employment, except in cases where the injured policemen or firemen are legally qualified and actually entitled to participate in any local policemen's or firemen's pension fund, established and maintained by municipal authority under existing laws.

"5. In case of the death of regular members of lawfully constituted police and fire departments of *cities*, under any appointment or contract of hire, resulting from injuries received in the course of their employment, the dependents of such members may participate in the state insurance fund, unless such dependents are legally qualified and actually entitled to receive death benefits from a local pension fund, established and maintained by municipal authority under existing laws.

"6. Where regular members of lawfully constituted police and fire departments of municipalities are injured in the course of their employment, resulting in temporary total disability, if such municipalities continue to pay the injured policemen or firemen their regular wages, during the period they are off duty because of their injuries, no loss in the way of compensation is sustained on account of such injuries and there can be no compensation out of the state insurance fund therefor, although such injured policemen or firemen are entitled to receive compensation from the state insurance fund, for medical, nurse and hospital services and medicine, unless they are legally qualified and actually entitled to participate in a local pension fund, established and maintained by municipal authority under existing laws.

"7. Where the lawfully constituted police department of a municipality consists of a chief of police and a given number of patrolmen, and one of said patrolmen, who was legally appointed from the eligible civil service list, was killed in the course of his employment, since the municipality had the power to hire and discharge such employee and to direct and control him, said patrolman was an employe of said municipality, within the Workmen's Compensation Law of Ohio, even though he received his compensation from a fund subscribed by citizens of such municipality; and in such case his dependents are entitled to receive compensation from the state insurance fund, unless they are actually entitled to receive benefits from a local pension fund, established and maintained by municipal authority under existing laws."

New York Institutions Must Have Protection

A measure has been passed in the New York state legislature that makes it mandatory for every asylum, hospital, orphanage and school in the state located where there is a central fire alarm office, to be equipped with a fire alarm box by July 1, 1929. This act applies to every such institution that has more than ten inmates.

The expense of acquiring and installing such boxes shall be borne by the person or corporation owning or operating such asylum, hospital, orphanage or school. If it is operated by a municipality, then the expense of such installation must be borne by the city. As soon as the boxes have been installed, they must be connected with the existing fire alarm circuits.

New York City officers have been commanded to make a survey to determine that all buildings mentioned in the law are provided with fire alarm boxes. Reports on this survey were submitted on June 4.

H-H INHALATOR

The H-H Inhalator is a Resuscitation Device for administering Carbogen (95% of Oxygen and 5% of Carbon Dioxide) to persons overcome by Smoke, Ammonia Fumes, Gas and Carbon Monoxide, the most treacherous gas encountered in Fire Fighting today. Especially Valuable in Treating Firemen suffering from Smoke Nausea.

The H-H Inhalator is used in conjunction with Artificial Respiration and is officially approved by the Association of Police and Fire Surgeons and the American Gas Association. Remarkable results are being obtained by firemen the world over.

Demonstrations Gladly Arranged
Write for Literature

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Braddock Ave & Thomas Blvd. Pittsburgh, Pa.

QUICK ACTION
FIRE ALARM BOX

ELIMINATES LOSS OF TIME

The Harrington-Seaberg Quick Action fire alarm box eliminates the inconvenience and loss of time of the old break glass box. The pull lever is easily and quickly reached; can be operated with one hand and after operation the pull lever cover falls closed. Approved by National Board of Fire Underwriters. Write for detail description and prices on this modern Quick Action Fire Alarm Box.

HARRINGTON-SEABERG CORPORATION
Municipal Signal Manufacturers
DEPT. G, MOLINE, ILLINOIS

We specialize in ALL the requirements of the Modern Municipality for Fire Alarm, Police and Traffic Signal Equipment.

MATHEWS
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FIRE HYDRANTS
for
DOMESTIC
and
HIGH PRESSURE
Service

NOTE—

The positive waste value.

All operating threads are dry, being above the stuffing-box.

No toggles, no small, quick-wearing parts.

All moving parts are bronze or bronze-bushed.

The outside casing permits replacing a two-way standpipe with a steamer and two-way standpipe without digging up the ground.

An easily installed
EXTENSION SECTION
readily adapts them to new grade.

VALVES and BOXES
CAST IRON PIPE
(Sand-Cast or "Sand-Spun")
FITTINGS

R. D. WOOD & CO., Phila., Pa.

Something entirely different
BUCKEYE
ROTO-RAYS!
A Signal that Commands Attention

BUCKEYE Roto-Rays make it possible for traffic officers, motorists and pedestrians to instantly identify the Fire Department after dark—the time that danger lurks in every shadow and at every street intersection.

The shriek of a whistle or the clang of a bell, first puts the public on the alert. But to distinguish the apparatus or officer's car from other illuminated objects, both moving and stationary, is a difficult task.

BUCKEYE ROTO-RAYS SOLVE THE PROBLEM.

These three powerful, revolving red signal lights, standing out in plain relief against the confusion of other lights upon the streets, enable every one to definitely establish the exact location of the apparatus, and in which direction it is proceeding.

It is another guaranteed Buckeye Product to be sold for Fire Department Service Exclusively.

Prices and Full Particulars upon application.

Buckeye Iron & Brass Works Dayton, Ohio

BUCKEYE
WARNING SIGNALS THAT WARN

RED ARROW SIREN

Siren with Storm Hood

1. Double-tone, and of greatest carrying power.
2. Ball bearings throughout.
3. Accurately machined and balanced.

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LONGER effective life, higher efficiency and greater freedom from trouble may be had by using Hale Dreadnaught Fire Pumps.

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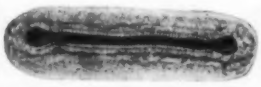
THE BI-LATERAL FIRE HOSE CO.
230 West Randolph St., Chicago, Ill.



The only change made in constructing the rocker lug coupling is
1. That it must be made of the very highest grade metal composition.
2. Adding a little more of the bronze metal to each side of the pin lug so that the couplings will ride without catching.

If this is not an improvement, why?

The Bi-Lateral Fire Hose Co. is using the rocker lug coupling as standard equipment because it is better for the hose and makes a fire department more efficient.

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of every description, stronger than lead and non-corrosive. Used by departments throughout the country.

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Lally Improved Fire Hose Couplings, Fire Extinguishers and Charges, Fire Hose and Fire Department Supplies in General

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are indispensable where high pressure service is required. With Eastman equipment any size streams can be easily handled by one man.

Eastman Nozzles and Deluge Sets

are designed by engineers who for over thirty years have specialized in equipment for producing fire-fighting streams that are unsurpassed for solidarity, distance and effectiveness.

Samuel Eastman Co.,
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INDUSTRIAL PLANT PROTECTION

"FAILURE OF SPRINKLERS" OFTEN BLAMED FOR LARGE PLANT LOSSES

Sometimes Large Firemen's Losses Are Due to Poor Judgment of Firemen—Two Typical Plant Fires Cited for Illustrations*

OFTEN one hears the expression "sprinkler failure." This term is incorrect in so far as it implies disparagement of automatic sprinklers. The failure of sprinklers to control a fire quickly and effectively is in almost every case due to poor maintenance, inadequate water supply, or other features of improper installation or care.

Two so-called sprinkler failures occurred recently in Factory Mutual mills. In neither case did the sprinklers get a chance. In both, the fault was in human judgment.

At the Tupelo Cotton Mills, Tupelo, Mississippi, on January 7, a defective electric motor mounted at the ceiling of the opener room short-circuited and threw sparks which ignited cotton on the floor. An operator threw several pails of water on the incipient blaze, but it flashed over cotton in slatted bins, down the full length of the room, traveling rapidly ahead of the opening of the sprinklers. Such quick flash fires over lint or dust open many heads, and in this case every one of the seventy sprinklers in the room opened.

Outsiders seeing the blaze called the public fire department. The firemen arrived promptly with their pumper and connected it to a yard hydrant at a nearby plant, drawing water from a 100,000-gallon standpipe and supplying one hose stream. They and the mill employees connected four other hose lines directly to nearby hydrants in the yard of the Tupelo Mills. These streams were fed from the public mains, which can furnish only a limited supply of water. The draft from the four streams reduced the pressure so that only about half of the heads near the riser received an appreciable amount of water. The 1000-gallon fire pump, installed to furnish aditional water for just such an emergency as this, remained idle because the men at the mill thought the fire too intense for the sprinklers and did not realize their full possibilities when well supplied with water.

Burning cotton dropped through an elevator shaft and started a fire on the first floor. It spread, and twenty-eight sprinklers opened. Being on a lower level, they received ample water and controlled the fire, but further robbed the second-story sprinklers.

A two and a half hour fight with five hose streams was needed before the fire could be extinguished. The plank on timber roof had by that time burned through so that rebuilding was necessary. Three walls of the building were of wood in the second floor and were wholly or partly destroyed. Sixty thousand pounds of loose and baled dyed and white cotton were damaged by fire and water. Sprinklers with an ample water supply could have prevented most of this loss, which reached nearly $20,000.

The second "sprinkler-failure" occurred in Pittsburgh, at the United States Glass Company. On December 16, workmen were using an acetylene torch for repair work near a glass lehr. Sparks dropped through a temporary floor opening onto a pile of empty burlap bags which had contained sodium nitrate. This chemical when heated gives off oxygen and intensifies combustion. Some of the crystals still clung to the bags. Fire flashed quickly over them, reached up through the floor opening, and ignited the joisted ceiling on the second floor.

In a few minutes the public firemen arrived. Two of them and an engineer of the plant went at once to the second floor and found the sprinklers operating. In a moment or so one of the firemen, for some unknown reason, yelled down to another engineer outside to close the sprinkler valve, which he did. The firemen were in charge but showed poor judgment. There is little doubt that the sprinklers would have quickly controlled the fire if they had not been shut off.

The firemen then fought the fire for over an hour with seven hose streams. It burned through the ceiling of the second floor, followed up a wooden partition, and ignited the roof of the building. Over seventy sprinklers opened, but were useless without water. The firemen finally checked the fire, but not before it had burned through two floors and the roof and had caused a loss of over $13,000.

Sprinklers given ample water can control large fires. They deliver water at the seat of a fire exactly where needed. Hose streams are often ineffective because they cannot reach the fire.

Sprinkler valves should not be closed during a fire. Rare exceptions are when water is being wasted through broken pipes or when the fire is under control and can be extinguished more surely and with less water damage by some other means.

Fire pumps should be started on the first alarm of fire. They give a good supply of water at ample pressure, and delay or failure to start them often permits a fire to get beyond control.

The engineer, master mechanic, firemen, watchman, and several members of the fire brigade should know how to start and operate the pumps and should be made responsible for starting them in case of fire.

Good cooperation between factory men and public firemen is essential. The public chief has full authority, but the factory men with their better knowledge of the plant and equipment can often give valuable service.

* From Factory Mutual Record.

New York City to Send Companies to Italy

A detachment of both an engine and a truck company manned by officers and firemen will attend the international exposition of fire fighting equipment and a convention of fire chiefs from all over the world to be held in Turin, Italy. The New York City firemen will leave near the end of August.

Chief Kenlon will attend the convention as a delegate of the International Association of Fire Chiefs. He and Mrs. Kenlon with Dr. and Mrs. Harry M. Archer will leave in August for a European tour before the convention opens.

The personnel of the two companies has been tentatively selected by Chief Kenlon and Commissioner Dorman. It is understood that most of them will be Italian speaking men and there will be at least one Italian-speaking officer. The Itlaian Government is defraying all of the expenses. Details for the trip are being worked by Judge Mancusco of General Sessions, with the cooperation of Chief Kenlon and Mr. Dorman.

Chillicothe, O., May Standardize Hydrants—Chillicothe, Ohio, is considering the standardization of fire hose and hydrant threads.

FALSE ALARMS

PRECAUTION

The chief of a fire department in a good sized community prevailed on his friend, head of a rural department to attend the state convention. Two of them convinced the village officials that the village should pay the expenses to the conclave, and the chiefs then left with a convention party.

It was a busy time the first day—what with registration, renewal of old acquaintances and so forth. And in the evening, there were little sessions in hotel rooms.

The village chief sat in the hotel lobby, lonely and watching the hands of the clock move slowly around.

He walked up to the desk clerk and said:

"Say son, I'd like to go to a show tonight, but I don't want to be locked out. What time do you close your doors?"

Talking of crashes with fire department apparatus, one chief said, "The way some people drive, it appears as if they were anxious to have their accident quickly and get it over with."

JUST A SMALL MODEL

It isn't very often that the fashionable heights section is treated to a fire spectacle. That accounted for so many gathered on the side walk watching a fire in an automobile.

One man leaning on his walking stick turned to his companion and said, "That reminds me: I must have my cigar lighter fixed."

SOMEWHAT LIMITED

Sam was the unlucky witness to the accident when a milk wagon ran into a fire truck. He was summoned to the witness stand as the principal witness for the city.

The city attorney said, "Sam, do you solemnly swear to tell the truth, the whole truth and nothing but the truth?"

"Ah, does, sah," was the reply.

"Then what have you got to say for yourself?"

"Well sah, wif all dem things, ah don't think ah have anything that ah could say."

HE NEEDED ONE

The factory fire was a most serious affair. Many girls became panicky and had to be carried down the ladders, and finally a man was brought out overcome by smoke. A large crowd had gathered.

Suddenly a man in the crowd shouted: "Quick, some whiskey, a woman has fainted."

About six pocket flasks were offered. He quickly gulped down the contents of one and then said to the astonished onlookers:

"It always makes me sick to see a woman faint."

A man in Westbrook, Me., was busy working in his carpenter shop and was surprised to hear the fire apparatus. He was more surprised to see them coming towards his shop and then extinguish a fire on his roof that had started from a spark from the chimney.

SELF INFLICTED

At the Center street fire, a wall crashed and broke Gallagher's leg. His friend had heard of the accident and went to cheer him with neighborly gossip.

After the usual remarks about the weather he said:

"I hear, Gallagher, that you broke your leg at the Center street fire."

"Yez heard wrong, me friend. It was broke by accident. What would I want to break my own leg for?"

A one way street is a throughfare on which the fire apparatus can be bumped from the rear only.

EXPECTED TOO MUCH

The hotel was on fire. On a sixth-story ledge stood a great movie actress, flames crackling about her. Below, the firemen were holding the net while the crowd waited in agonized suspense. Finally a strained voice screamed:

"Jump, lady, for goodness' sake."

The great movie actress folded her arms in calm disdain.

"I'll do nothing of the sort," she answered. "Tell the director to send my double here this instant."—*Life.*

SIGN OF THE TIMES

Tom Collins had his fill of fresh air, health development, waist contraction and chest expansion since he went to the fire department school for rookies. It was inhale, exhale, up, down and so on for most of the morning. Yes, he had his fill of health development; and he naturally looked for signs of it about his girl friend when he went to call on her that evening.

"Aren't rosy cheeks a sign of good health?" he asked her.

"I should say they are," she replied most emphatically.

"Well, you're a whole lot healthier on one side than the other."

NOT LABELED

The captain of No. 6 company roared his way into the kitchen just as the chef for the day was putting away his pots and pans. The captain was far from being pleasant.

"Hey there, look here. I think I'm sick from that pudding you made. Where in Sam Hill did you get the stuff for it?"

The man appeared puzzled.

"I got the flour from the bin there," and he pointed to a large compartment.

"Say you d——" replied the captain, "that's not flour. That's foam powder."

WHEN IN DOUBT—

Rafferty asked for the day off for he was expecting an addition to his family. About nine o'clock that night, he staggered into the station, very much exhilarated.

"Hey there fellows, lishen to this. Lishen! I am now the father of twins."

"Where do you see any fellows? I am the only one on the apparatus floor," said the desk man.

Rafferty thought for a while and then straightened up.

"Maybe I had better go home. Maybe it wasn't twins."

The modern definition of a real he-man is one who takes his yeast straight.

PAID IN FULL

After the firemen had left, the manager of what was Silsbe's Department store, hired a man to watch the ruins to be sure that the damaged stock was not stolen before the fire adjusters arrived.

In the morning, the manager called to pay the watchman.

"I got to have overtime for last night's work," said the watchman. "I overslept and did not leave the job until 9:30."

The Pressed-While-You-Wait Establishment Catches Fire

—*Courtesy, "Life"*

Since 1868 the products of Union Water Meter Company have been regarded generally as the standard of perfection. Constructed on sound, scientific principles, improved with the advance of time, the combined experience of nearly sixty years stands behind these manufactured specialties.

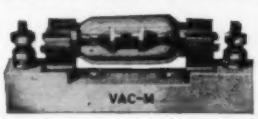
Worcester Fire Alarm Signals are built to give an alarm that is heard above the din of traffic, yet with a tone that is not piercing or unpleasant. Carries great distances. Four sizes.

Ask for catalog R-51

Union Water Meter Co.
Worcester, Mass.

New York: 50 Church St.
Philadelphia: 411 Bulletin Bldg.

WORCESTER ALARM SIGNALS



When You Need Arresters for Your Alarm System—

remember that this company is the pioneer vacuum arrester manufacturer and be sure to get complete information from us before you place your order.

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TOLEDO . . . . OHIO

JACOB REED'S SONS

Founded 1824 by Jacob Reed

FIREMEN'S UNIFORMS

Thoroughly tailored of especially selected fabrics. Uniforms that look well, wear well and that will give entirely satisfactory service.

Reed's Uniforms are most economical because they represent full value for the amount expended.

Write for catalog and prices.

1424-1426 Chestnut St., Philadelphia, Pa.

"Shuredry" Waterproofed SALVAGE COVERS

Chief D.W. Brosnan

See what Chief Brosnan, of the Albany Fire Department has to say about Shuredry for salvage work.

"We have used SHUREDRY covers in all our salvage work for a number of years; we have found them durable and they give absolute satisfaction. They are light and easy to handle which makes for speed, and speed means everything in salvage work."

"We carry six standard size covers on each piece of apparatus and through their use we have saved thousands of dollars of water damage that otherwise could not have been avoided. I have no hesitancy in recommending them."

Write for Shuredry samples and prices.

FULTON BAG & COTTON MILLS

Atlanta Dallas Brooklyn St Louis
Minneapolis New Orleans

MAXIM FIRE APPARATUS

If your apparatus is Maxim-built it will prove dependable and reliable at all times.

Complete information upon request.

MAXIM MOTOR COMPANY, Middleboro, Mass.

Metropolitan Sales Agents:
The Woodhouse Manufacturing Co., 156 Chambers St., N. Y.

Saves time - *and costly hose*

No. 1 (Capacity 3 to 7 tons, weight each 72 lbs.)

No. 2 (Capacity 3 to 12 tons, weight each 118 lbs.)

Complete Information of Prices on request

It's often necessary to move apparatus at a fire. Automobile traffic hates to be held up by a line of hose stretched across the right of way.

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60 Hose Standardization Tools.
61 Hydrant Draining Pumps.
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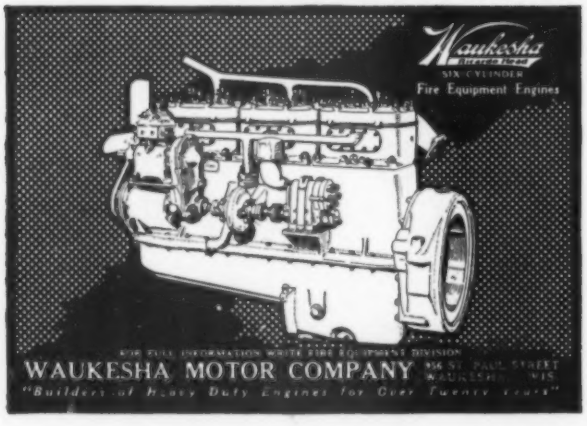

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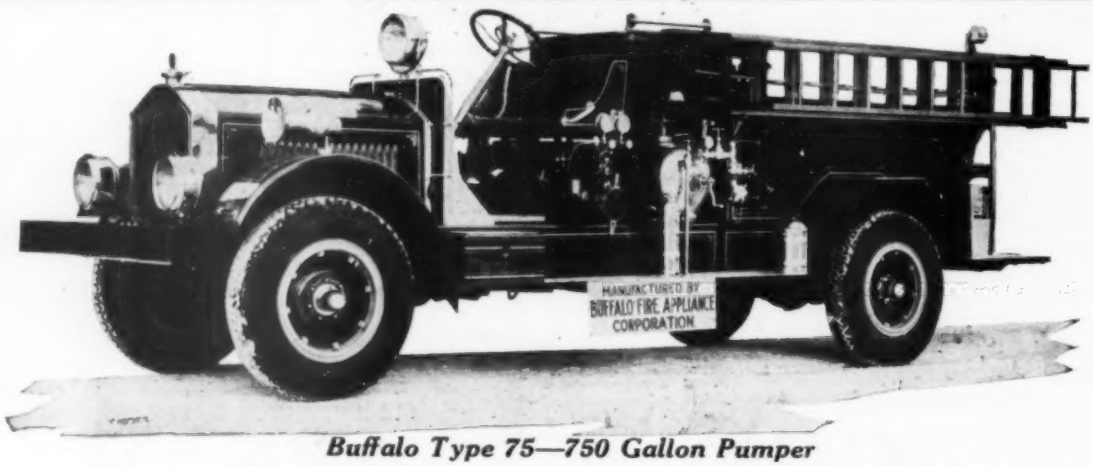

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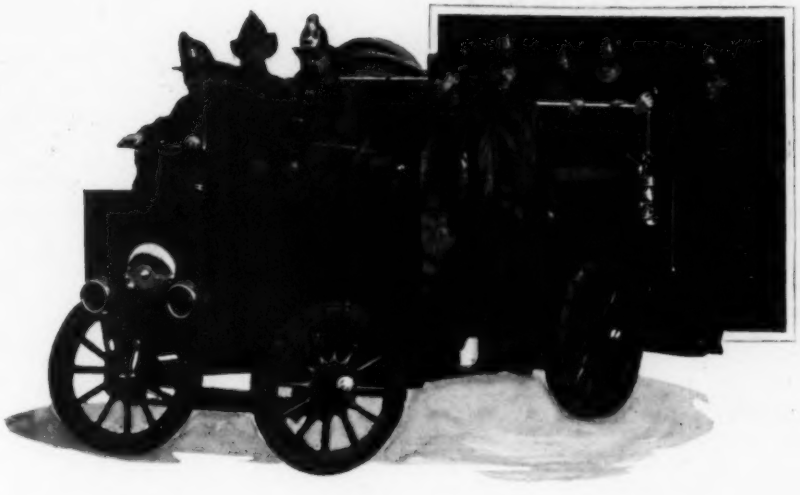

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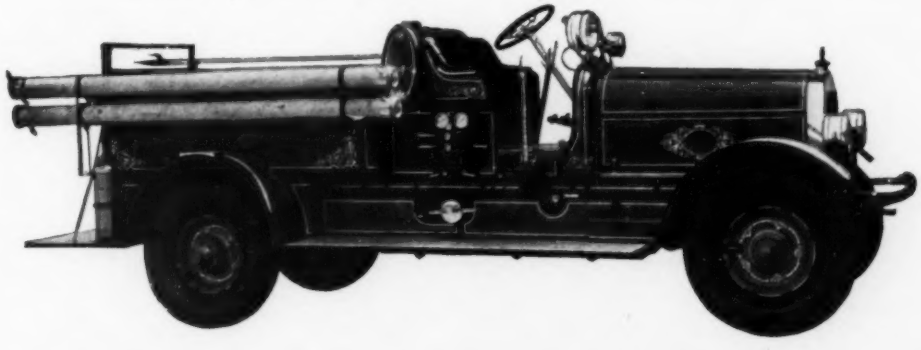

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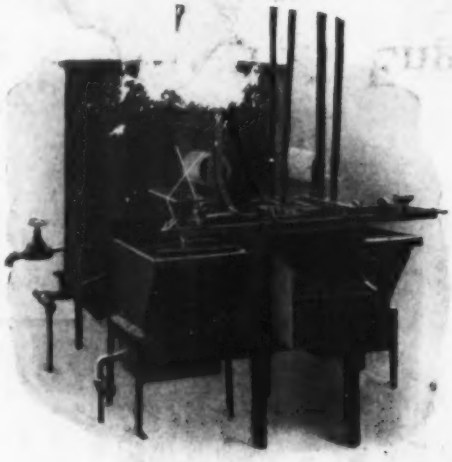

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